

- NOTES:**
1. INSTALL FLOWMETER WITH MINIMUM OF 5 PIPE DIAMETERS UPSTREAM AND 2 PIPE DIAMETERS DOWNSTREAM, TO ANY FITTING OR VALVE.
 2. MIXING PUMP IS PROVIDED WITH 1 1/4" NPT SUCTION AND 1" NPT DISCHARGE CONNECTIONS.
 3. INSTRUMENT ROOT VALVES SHALL BE 1/2" UNLESS OTHERWISE NOTED.
 4. REMOVE CAP AND ATTACH HOSE CONNECTOR (AS REQUIRED BY FIELD) FOR FLUSHING.

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
CONDENSATE CHEMICAL INJECTION
SYSTEM NO. 1411

SCALE:	NONE	DRAWING NO.	VER.
		1X4DB157	12.0

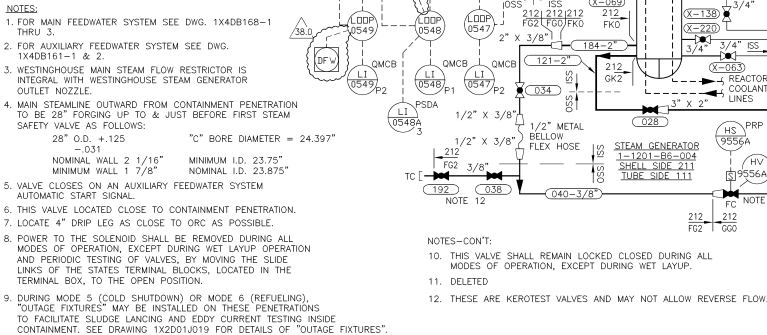
REVISIONS: 12.0 REVISED PER ABN1039001.010W041, VERSION 2.0, 03-31-01 RCH RCR JMR
DATE DR CHK APPV

JOB NO. 10604

SIZE E 34x44

DWG CATEGORY: CRITICAL

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NOTES-CONT:

10. THIS VALVE SHALL REMAIN LOCKED CLOSED DURING ALL MODES OF OPERATION, EXCEPT DURING WET LAYUP.

11. DELETED

12. THESE ARE KEROTEST VALVES AND MAY NOT ALLOW REVERSE FLOW

CAD	1X4DB159-1
ACAD2007	JLO - 03

SYSTEM NO. 1501

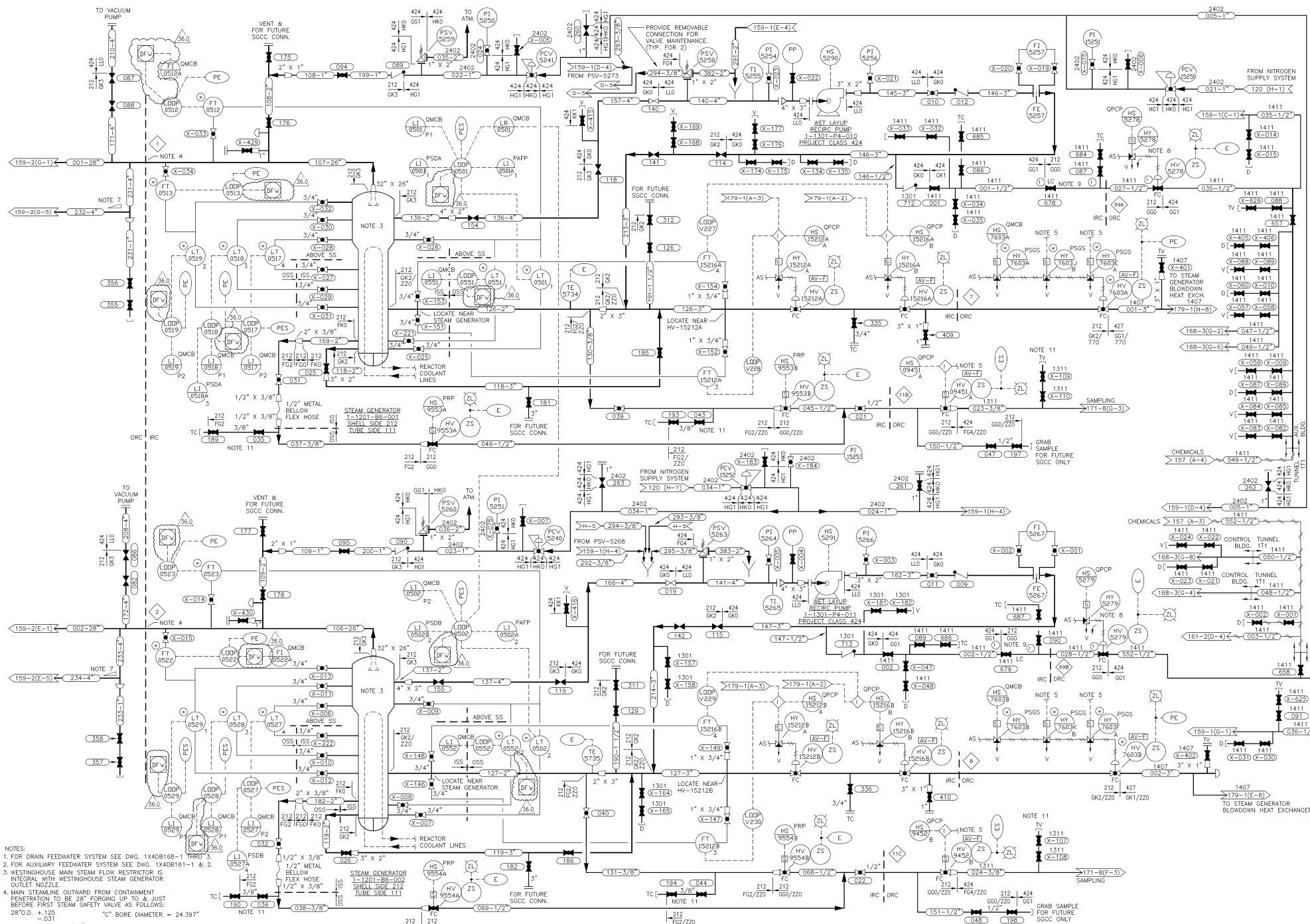
SCALE- NONE	DRAWING NO.	VI
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SCORE	NONE	1X1DD150	1
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JOB NO.10604	TX4DB159-1	38
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34X44	DRAWING CATEGORY
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1	DRAWING CATEGORY: CRITICAL
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NOTES:

1. FOR DRAIN FEEDWATER SYSTEM SEE DWG. 1X40B168-1 THRU 5.
2. FOR AUXILIARY FEEDWATER SYSTEM SEE DWG. 1X40B161-1 & 2.
3. WESTINGHOUSE MAIN STEAM FLOW RESTRICTOR IS INTEGRAL WITH WESTINGHOUSE STEAM GENERATOR OUTLET NOZZLE.
4. MAIN STEAMLINE OUTWARD FROM CONTAINMENT PENETRATION TO BE 28" FORGING UP TO & JUST BEFORE FIRST STEAM SAFETY VALVE AS FOLLOWS:
28" O.D. ± .125 "C" BORE DIAMETER = 24.397"
5. VALVE CLOSING ON AN AUXILIARY FEEDWATER SYSTEM AUTOMATIC START SIGNAL.
6. THIS VALVE LOCATED CLOSE TO CONTAINMENT PENETRATION.
7. LOCATE 4" DRIP LEG AS CLOSE TO ORC AS POSSIBLE.
8. POWER TO THE SOLENOID SHALL BE REMOVED DURING ALL MODES OF OPERATION, EXCEPT DURING WET LAYUP OPERATION AND PERIODIC TESTING OF THE VALVES, BY MOVING THE SLIDE LINKS OF THE STATES TERMINAL BLOCKS, LOCATED IN THE TERMINAL BOX, TO THE OPEN POSITION.
9. THIS VALVE SHALL REMAIN LOCKED CLOSED DURING ALL MODES OF OPERATION, EXCEPT DURING WET LAYUP.
10. DELETED.
11. THESE ARE KEROTEST VALVES AND MAY NOT ALLOW REVERSE FLOW.

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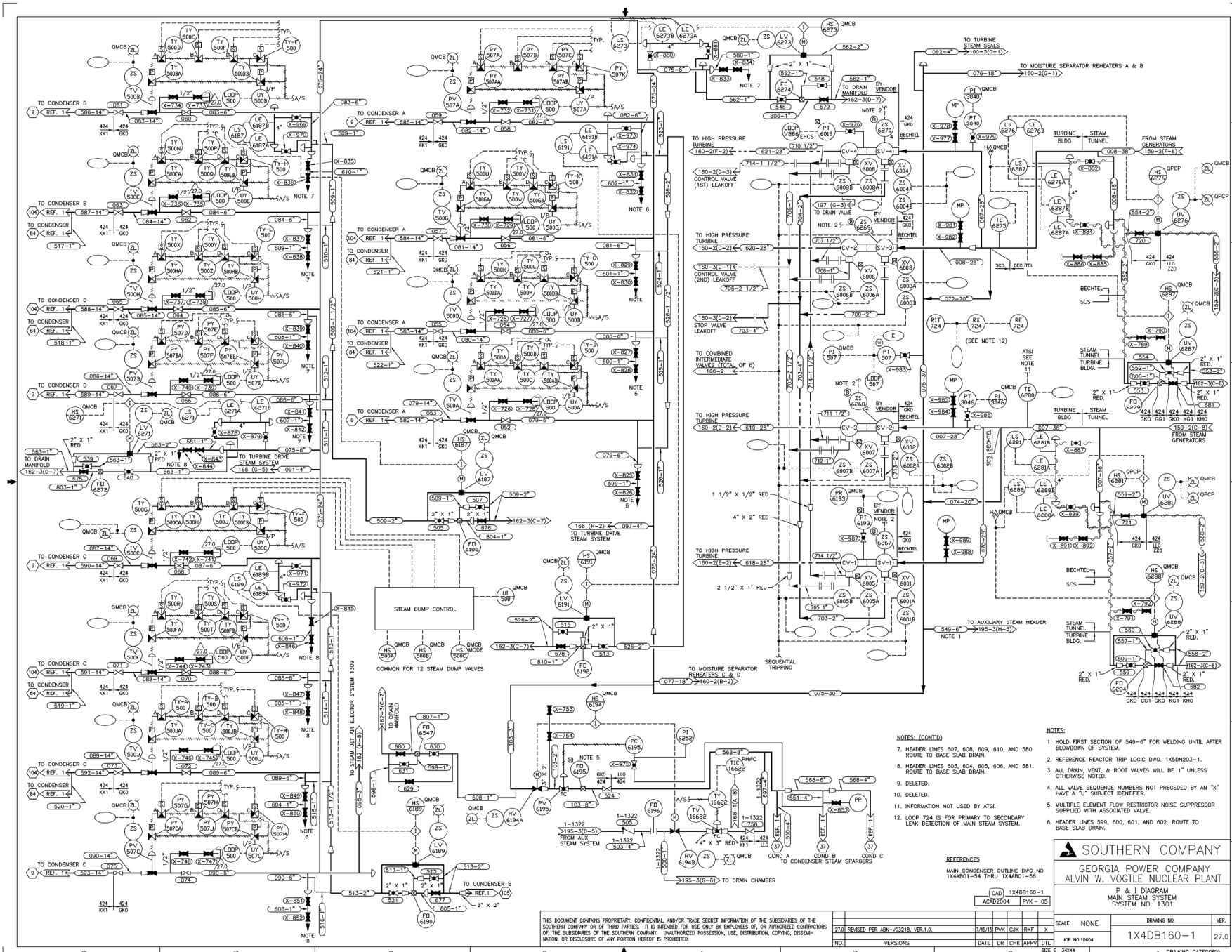
SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
MAIN STEAM SYSTEM
SYSTEM NO. 1301

SCALE: NONE DRAWING NO. VER.

1X4DB159-3 36.0

1 DRAWING CATEGORY: CRITICAL



NOTES: (CONT'D)

1. HOLD FIRST SECTION OF 549-6" FOR WELDING UNTIL AFTER BLOWDOWN OF SYSTEM.
2. REFERENCE REACTOR TRIP LOGIC DWG. 1X50N203-1.
3. ALL DRAIN, VENT, & ROOT VALVES WILL BE 1" UNLESS OTHERWISE NOTED.
4. DELETED.
5. DELETED.
6. ALL VALVE SEQUENCE NUMBERS NOT PRECEDED BY AN "X" HAVE A "V" SUBJECT IDENTIFIER.
7. MULTIPLE ELEMENT FLOW RESTRICTOR NOISE SUPPRESSOR SUPPLIED WITH ASSOCIATED VALVE.
8. HEADER LINES 599, 600, 601, & 602. ROUTE TO BASE SLAB DRAIN.

NOTES:

1. HOLD FIRST SECTION OF 549-6" FOR WELDING UNTIL AFTER BLOWDOWN OF SYSTEM.
2. REFERENCE REACTOR TRIP LOGIC DWG. 1X50N203-1.
3. ALL DRAIN, VENT, & ROOT VALVES WILL BE 1" UNLESS OTHERWISE NOTED.
4. DELETED.
5. DELETED.
6. ALL VALVE SEQUENCE NUMBERS NOT PRECEDED BY AN "X" HAVE A "V" SUBJECT IDENTIFIER.
7. MULTIPLE ELEMENT FLOW RESTRICTOR NOISE SUPPRESSOR SUPPLIED WITH ASSOCIATED VALVE.
8. HEADER LINES 599, 600, 601, & 602. ROUTE TO BASE SLAB DRAIN.

REFERENCES

MAIN CONDENSER OUTLINE DWG NO. 1X48B01-54 THRU 1X48B01-58.

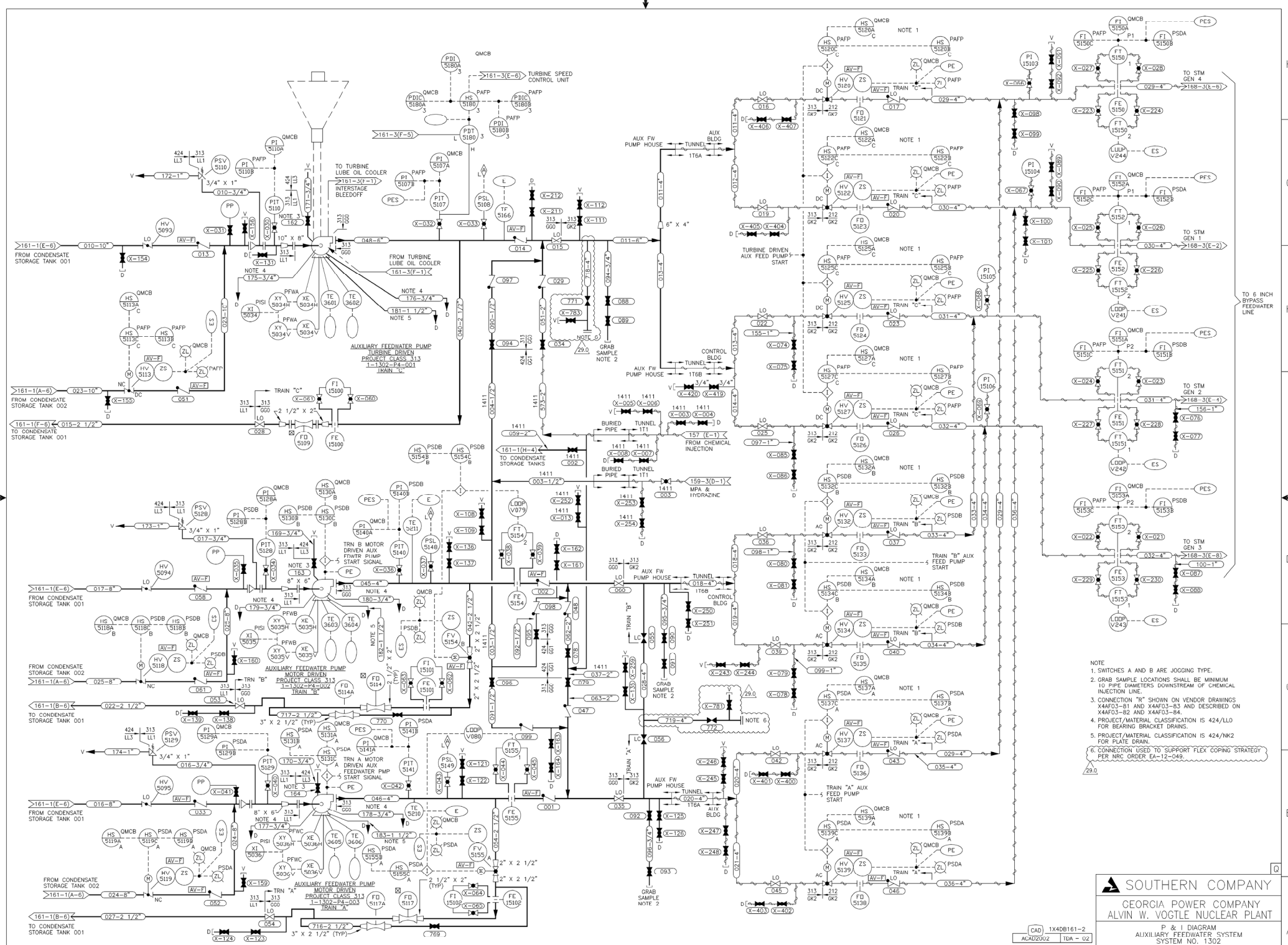
CAD 1X48B160-1 ACAD2004 PKV-05

SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
P & I DIAGRAM
MAIN STEAM SYSTEM
SYSTEM NO. 1301

SCALE: NONE
DRAWING NO. 1X48B160-1
JOB NO. 10004
DATE: 7/15/03
REV: 1
APPV: C
SHEET: 4 OF 4

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NO.	REVISIONS	DATE	BY	CHK	APPV
270	REVISED PER A8N-003218, VER.1.0.	7/15/03	PKV	CJK	RWF

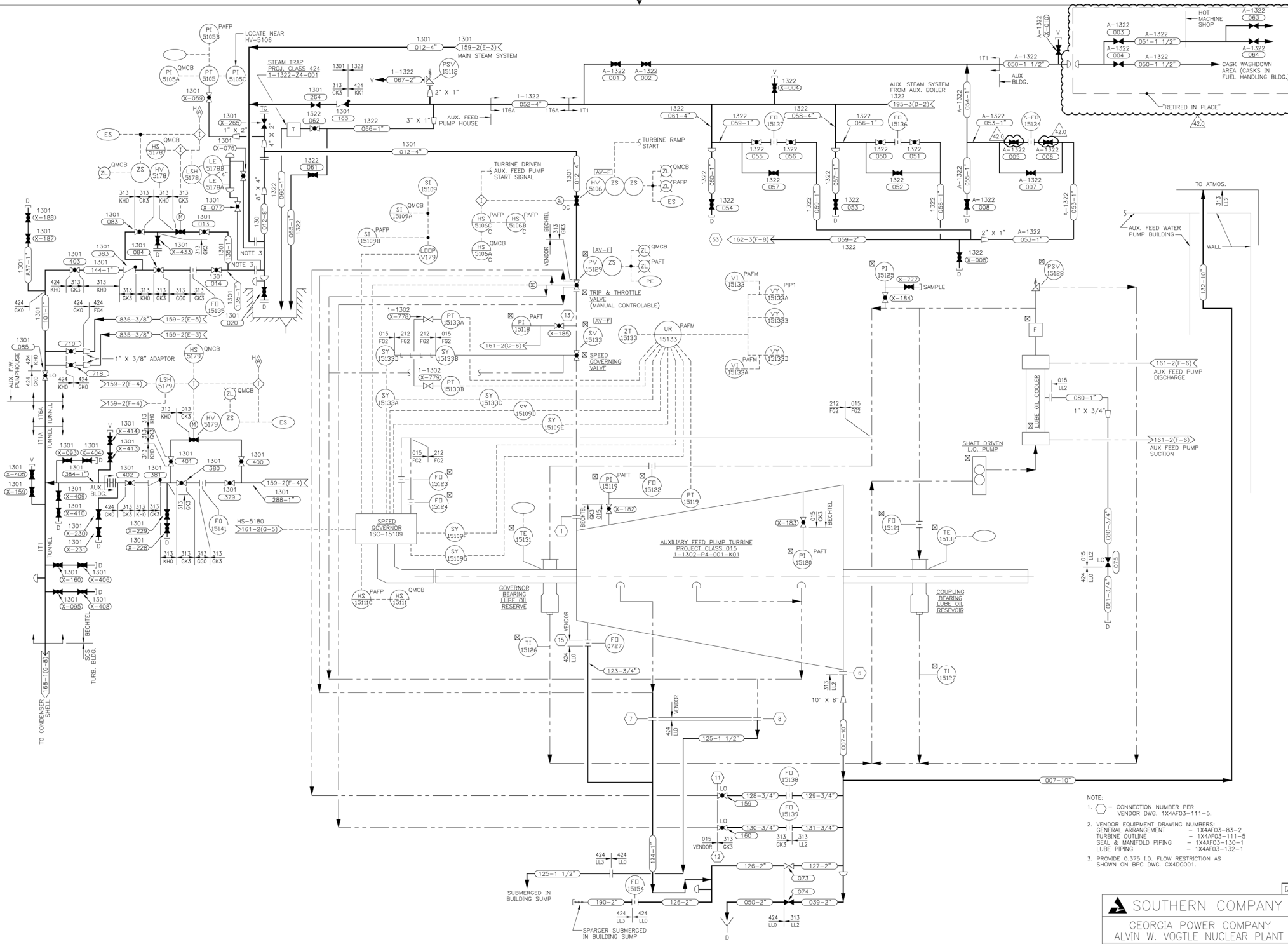


- NOTE
- 1. SWITCHES A AND B ARE JOGGING TYPE.
 - 2. GRAB SAMPLE LOCATIONS SHALL BE MINIMUM 10 PIPE DIAMETERS DOWNSTREAM OF CHEMICAL INJECTION LINE.
 - 3. CONNECTION "R" SHOWN ON VENDOR DRAWINGS X44F03-81 AND X44F03-84, AND DESCRIBED ON X44F03-82 AND X44F03-84, FOR BEARING BRACKET DRAWINGS.
 - 4. PROJECT/MATERIAL CLASSIFICATION IS 424/LLO FOR PLATE DRAIN.
 - 5. PROJECT/MATERIAL CLASSIFICATION IS 424/NK2 FOR PLATE DRAIN.
 - 6. CONNECTION USED TO SUPPORT FLEX COPING STRATEGY PER NRC ORDER EA-12-045.

SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
AUXILIARY FEEDWATER SYSTEM
SYSTEM NO. 1302

CAD 1X4DB161-2
ACAD2002 IDA - 02

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29.0 REVISED PER AIN SMC477823M002, VER. 1.0										05/06/10		TDA	MWD	WLN	X		1x4DB161-2	29.0
NO.										DATE		DR	CHK	APPV	DTL			
JOB NO.10604										SIZE E		34x44		DRAWING CATEGORY:				



- NOTE:
1. CONNECTION NUMBER PER VENDOR DWG. 1X44F03-111-5.
 2. VENDOR EQUIPMENT DRAWING NUMBERS:
GENERAL ARRANGEMENT - 1X44F03-83-2
TURBINE OUTLINE - 1X44F03-111-5
SEAL & MANFOLD PIPING - 1X44F03-130-1
LUBE PIPING - 1X44F03-132-1
 3. PROVIDE 0.375 I.D. FLOW RESTRICTION AS SHOWN ON BPC DWG. CX40G001.

SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
AUXILIARY FEEDWATER PUMP SYSTEM
(AUX FEEDWATER PUMP TURBINE DRIVER)
SYSTEM 1302

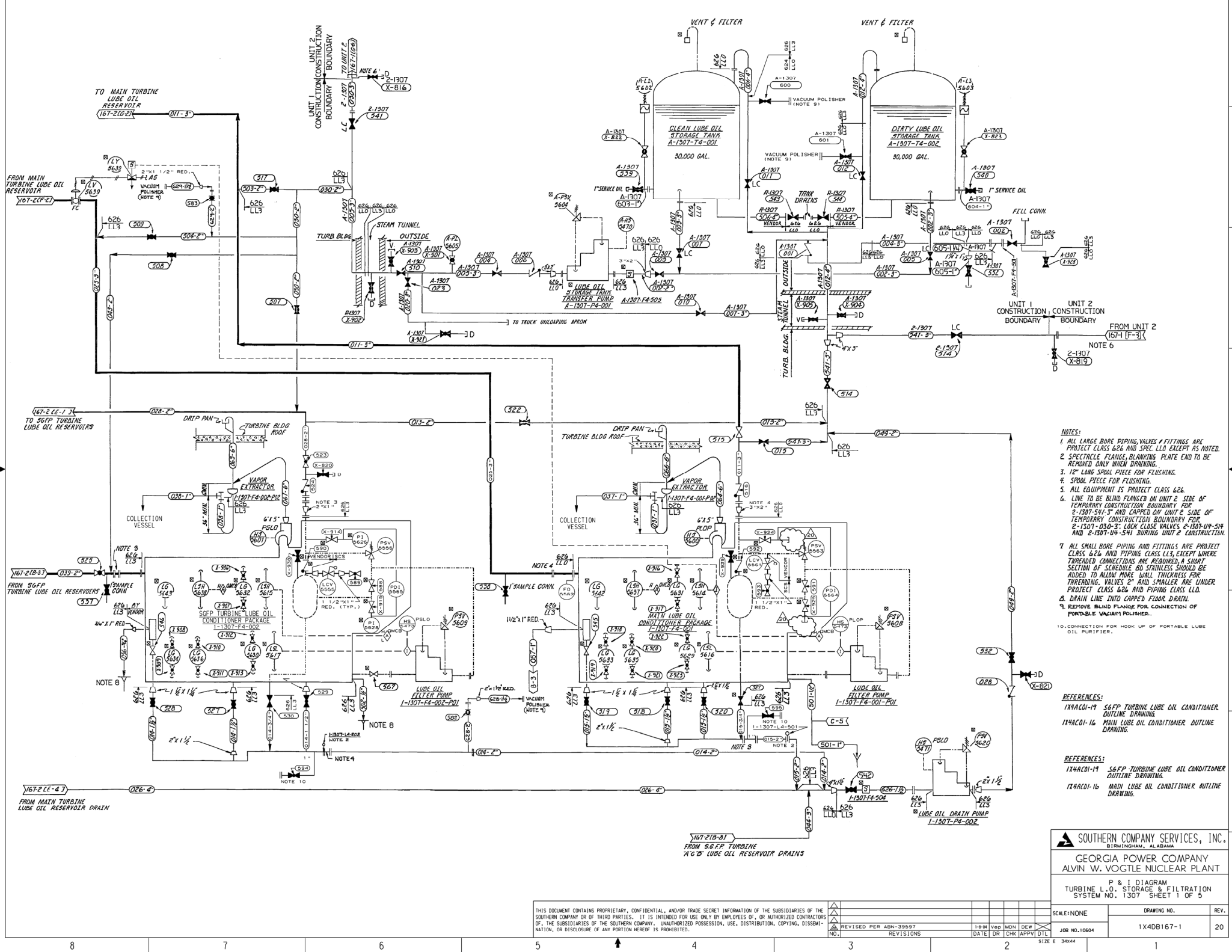
(CAD) 1X4DB161-3
ACAD2004 KB - 03

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NO.	REVISIONS	DATE	BY	CHK	APPV	DTL
42.0	REV. PER ABIN C100867701M005, VER. 1.0.	10/16/03	KB	RBH	JMR	X
NO.	VER.	DATE	DR	CHK	APPV	DTL


SCALE: NONE	DRAWING NO. 1X4DB161-3	VER. 42.0
JOB NO. 10604	1X4DB161-3	42.0
SHEET E 34444		

DRAWING CATEGORY: CRITICAL



- NOTES:
- 1. ALL LARGE BORE PIPING, VALVES & FITTINGS ARE PROTECT CLASS 626 AND SPEC LLD EXCEPT AS NOTED.
 - 2. SPECIFIC FLANGES, BLANDING PLATE END TO BE REMOVED ONLY WHEN DRAINING.
 - 3. 12" LONG SPOOL PIECE FOR FLUSHING.
 - 4. SPOOL PIECE FOR FLUSHING.
 - 5. ALL EQUIPMENT IS PROTECT CLASS 626.
 - 6. LINE TO BE BLIND FLANGED ON UNIT 2 SIDE OF TEMPORARY CONSTRUCTION BOUNDARY FOR 2-1307-541-3 AND CAPPED ON UNIT 2 SIDE OF TEMPORARY CONSTRUCTION BOUNDARY FOR 2-1307-030-3; LOCK CLOSE VALVES 2-1307-04-51W AND 2-1307-04-541 DURING UNIT 2 CONSTRUCTION.
 - 7. ALL SMALL BORE PIPING AND FITTINGS ARE PROTECT CLASS 626 AND PIPING CLASS LLD, EXCEPT WHERE THREADED CONNECTIONS ARE REQUIRED. A SHORT SECTION OF SCHEDULE 80 STAINLESS SHOULD BE ADDED TO ALLOW MORE WALL THICKNESS FOR THREADED VALVES 2" AND SMALLER ARE UNDER PROTECT CLASS 626 AND PIPING CLASS LLD.
 - 8. DRAIN LINE INTO CAPPED FLOOR DRAIN.
 - 9. REMOVE BLIND FLANGE FOR CONNECTION OF PORTABLE VACUUM POLISHER.
 - 10. CONNECTION FOR HOOK UP OF PORTABLE LUBE OIL PURIFIER.

- REFERENCES:
- 1X4C01-19 SGFP TURBINE LUBE OIL CONDITIONER OUTLINE DRAWING.
 - 1X4C01-16 MAIN LUBE OIL CONDITIONER OUTLINE DRAWING.
- REFERENCES:
- 1X4C01-19 SGFP TURBINE LUBE OIL CONDITIONER OUTLINE DRAWING.
 - 1X4C01-16 MAIN LUBE OIL CONDITIONER OUTLINE DRAWING.

**SOUTHERN COMPANY SERVICES, INC.**
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE L.O. STORAGE & FILTRATION
SYSTEM NO. 1307 SHEET 1 OF 5

SCALE: NONE

DRAWING NO. 1X4DB167-1

REV. 20

REVISIONS

DATE

DR

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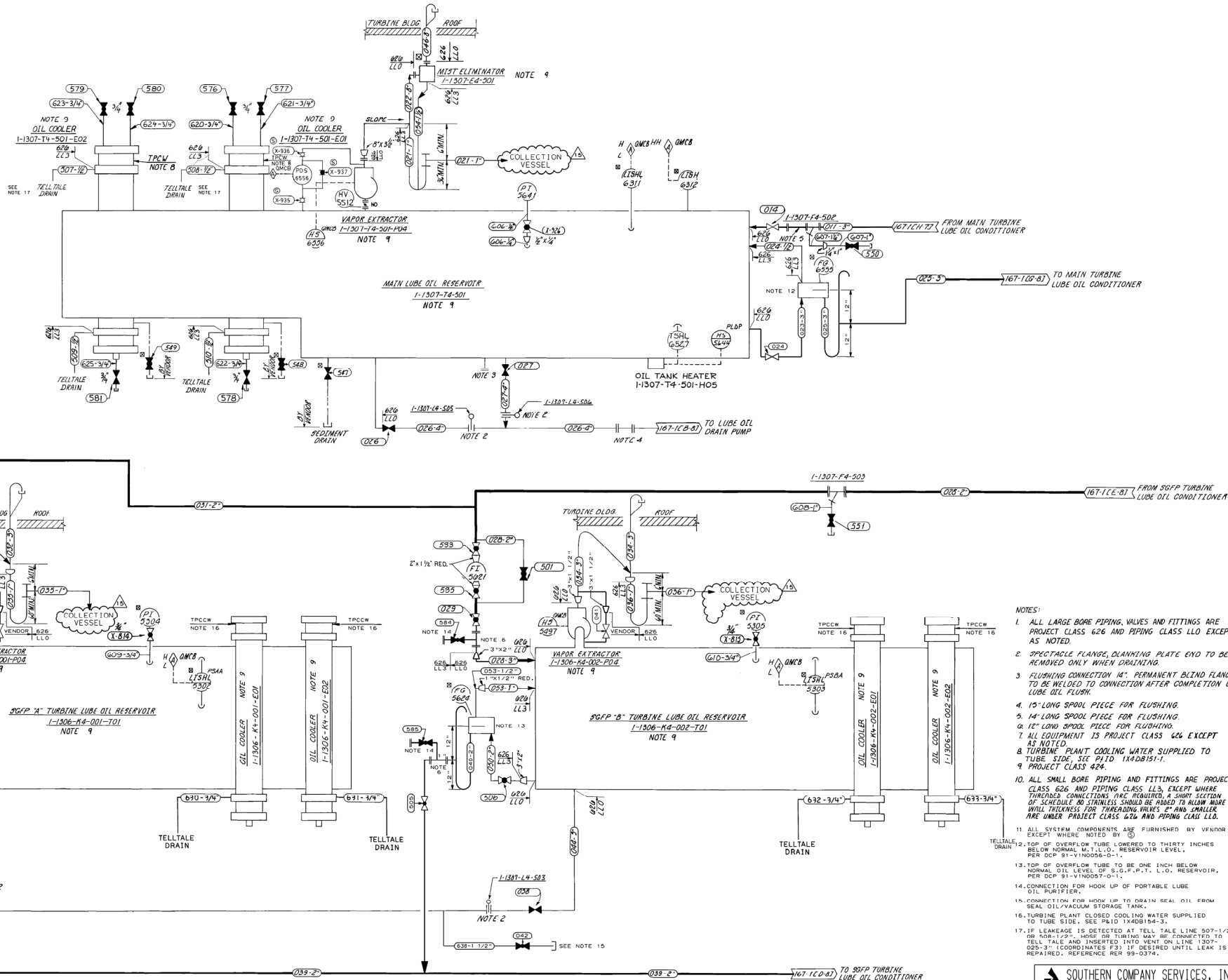
APPV

DTL

JOB NO. 10604

SIZE E 34x44

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- NOTES:
1. ALL LARGE BORE PIPING, VALVES AND FITTINGS ARE PROJECT CLASS 626 AND PIPING CLASS LLO EXCEPT AS NOTED.
 2. SPECTACLE FLANGE, DRANKING PLATE END TO BE REMOVED ONLY WHEN DRAINING.
 3. FLUGHING CONNECTION 14": PERMANENT BLIND FLANGE TO BE WELDED TO CONNECTION AFTER COMPLETION OF LUBE OIL FLUSH.
 4. 15' LONG SPOOL PIECE FOR FLUSHING.
 5. 12' LONG SPOOL PIECE FOR FLUSHING.
 6. 14' LONG SPOOL PIECE FOR FLUSHING.
 7. ALL EQUIPMENT IS PROJECT CLASS 626 EXCEPT AS NOTED.
 8. TURBINE PLANT COOLING WATER SUPPLIED TO TUBE SIDE, SEE P110 1X4DB151-1.
 9. PROJECT CLASS 424.
 10. ALL SMALL BORE PIPING AND FITTINGS ARE PROJECT CLASS 626 AND PIPING CLASS LLO, EXCEPT WHERE THREADED CONNECTIONS ARE REQUIRED. A SHORT SECTION OF SCHEDULE 80 STAINLESS SHOULD BE ADDED TO ALLOW MORE WELD TENSILE FOR THREADED VALVES & SMALLER ARE UNDER PROJECT CLASS 626 AND PIPING CLASS LLO.
 11. ALL SYSTEM COMPONENTS ARE FURNISHED BY VENDOR EXCEPT WHERE NOTED BY (C).
 12. TOP OF OVERFLOW TUBE TO BE THIRTY INCHES BELOW NORMAL M.T.L.D. RESERVOIR LEVEL. PER DCP 91-VIND056-0-1.
 13. TOP OF OVERFLOW TUBE TO BE ONE INCH BELOW NORMAL OIL LEVEL OF S.G.P.P.T. L.O. RESERVOIR. PER DCP 91-VIND057-0-1.
 14. CONNECTION FOR HOOK UP OF PORTABLE LUBE OIL PURIFIER.
 15. CONNECTION FOR HOOK UP TO DRAIN SEAL OIL FROM SEAL OIL/VACUUM STORAGE TANK.
 16. TURBINE PLANT CLOSED COOLING WATER SUPPLIED TO TUBE SIDE. SEE P110 1X4DB154-3.
 17. IF LEAKAGE IS DETECTED AT TELL TALE LINE 507-1/2", OR 508-1/2", OR 509-1/2", OR 510-1/2", OR 511-1/2", OR 512-1/2", OR 513-1/2", OR 514-1/2", OR 515-1/2", OR 516-1/2", OR 517-1/2", OR 518-1/2", OR 519-1/2", OR 520-1/2", OR 521-1/2", OR 522-1/2", OR 523-1/2", OR 524-1/2", OR 525-1/2", OR 526-1/2", OR 527-1/2", OR 528-1/2", OR 529-1/2", OR 530-1/2", OR 531-1/2", OR 532-1/2", OR 533-1/2", OR 534-1/2", OR 535-1/2", OR 536-1/2", OR 537-1/2", OR 538-1/2", OR 539-1/2", OR 540-1/2", OR 541-1/2", OR 542-1/2", OR 543-1/2", OR 544-1/2", OR 545-1/2", OR 546-1/2", OR 547-1/2", OR 548-1/2", OR 549-1/2", OR 550-1/2", OR 551-1/2", OR 552-1/2", OR 553-1/2", OR 554-1/2", OR 555-1/2", OR 556-1/2", OR 557-1/2", OR 558-1/2", OR 559-1/2", OR 560-1/2", OR 561-1/2", OR 562-1/2", OR 563-1/2", OR 564-1/2", OR 565-1/2", OR 566-1/2", OR 567-1/2", OR 568-1/2", OR 569-1/2", OR 570-1/2", OR 571-1/2", OR 572-1/2", OR 573-1/2", OR 574-1/2", OR 575-1/2", OR 576-1/2", OR 577-1/2", OR 578-1/2", OR 579-1/2", OR 580-1/2", OR 581-1/2", OR 582-1/2", OR 583-1/2", OR 584-1/2", OR 585-1/2", OR 586-1/2", OR 587-1/2", OR 588-1/2", OR 589-1/2", OR 590-1/2", OR 591-1/2", OR 592-1/2", OR 593-1/2", OR 594-1/2", OR 595-1/2", OR 596-1/2", OR 597-1/2", OR 598-1/2", OR 599-1/2", OR 600-1/2", OR 601-1/2", OR 602-1/2", OR 603-1/2", OR 604-1/2", OR 605-1/2", OR 606-1/2", OR 607-1/2", OR 608-1/2", OR 609-1/2", OR 610-1/2", OR 611-1/2", OR 612-1/2", OR 613-1/2", OR 614-1/2", OR 615-1/2", OR 616-1/2", OR 617-1/2", OR 618-1/2", OR 619-1/2", OR 620-1/2", OR 621-1/2", OR 622-1/2", OR 623-1/2", OR 624-1/2", OR 625-1/2", OR 626-1/2", OR 627-1/2", OR 628-1/2", OR 629-1/2", OR 630-1/2", OR 631-1/2", OR 632-1/2", OR 633-1/2", OR 634-1/2", OR 635-1/2", OR 636-1/2", OR 637-1/2", OR 638-1/2", OR 639-1/2", OR 640-1/2", OR 641-1/2", OR 642-1/2", OR 643-1/2", OR 644-1/2", OR 645-1/2", OR 646-1/2", OR 647-1/2", OR 648-1/2", OR 649-1/2", OR 650-1/2", OR 651-1/2", OR 652-1/2", OR 653-1/2", OR 654-1/2", OR 655-1/2", OR 656-1/2", OR 657-1/2", 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SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

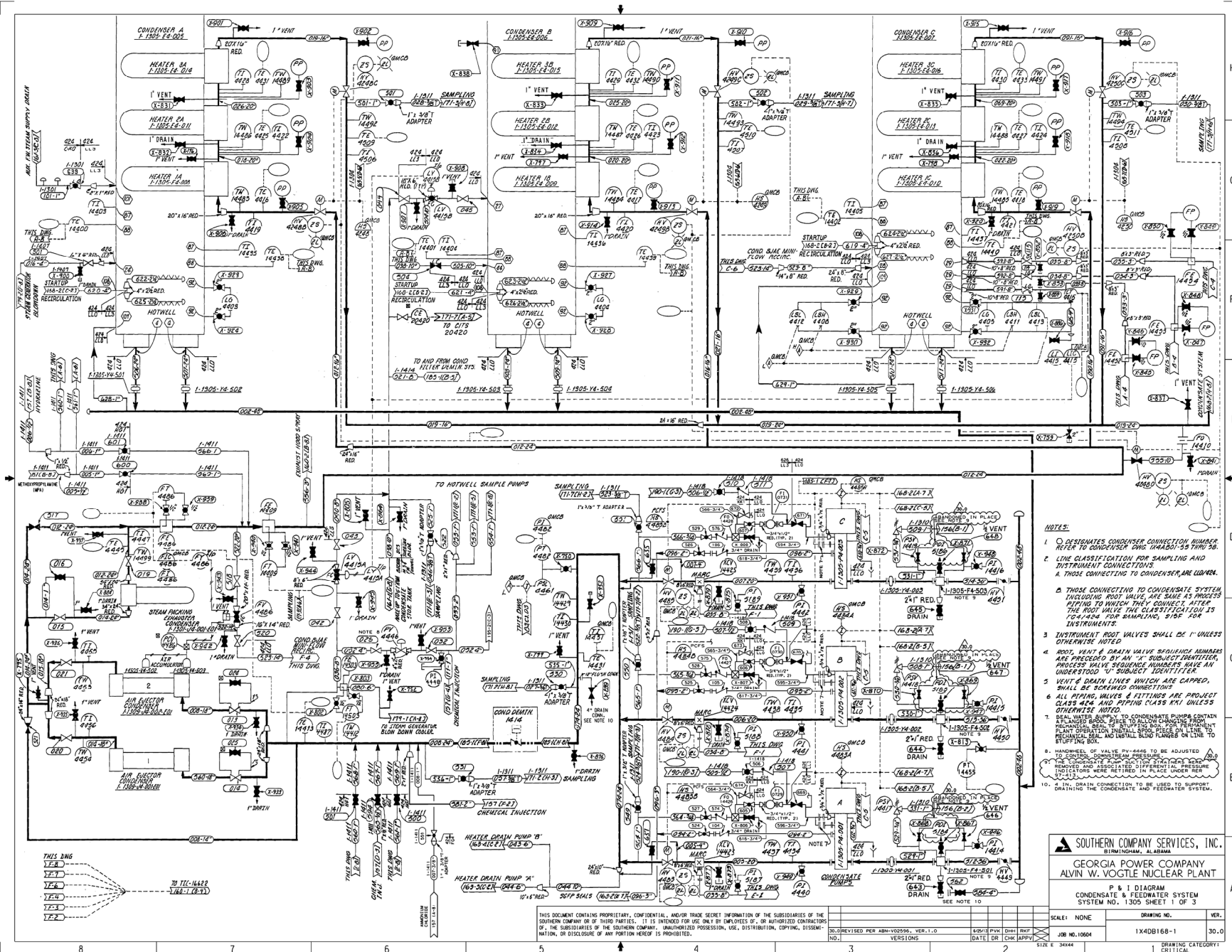
P & I DIAGRAM
TURBINE L.O. STORAGE & FILTRATION
SYSTEM NO. 1307 SHEET 2 OF 5

SCALE: NONE	DRAWING NO.	REV.
1X4DB167-2	15	

DATE	DR	CHK	APPV	DTL
10-22-88	CHM	CHM	CHM	CHM

REVISIONS	DATE	DR	CHK	APPV	DTL
INCORP. PER ABN-39556					

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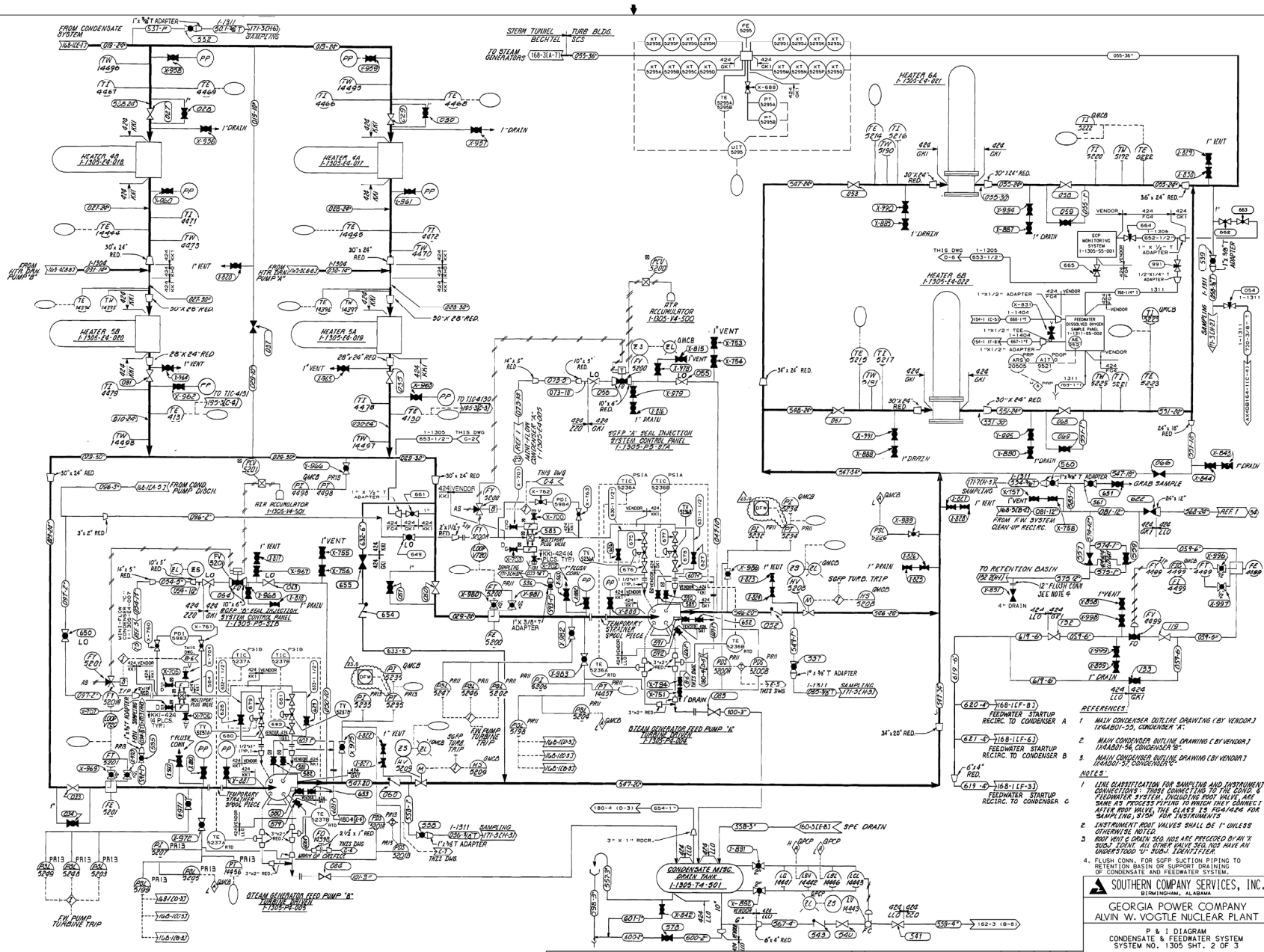


- NOTES:
1. O DESIGNATES CONDENSER CONNECTION NUMBER. REFER TO CONDENSER DWG. 14A4801-59 THRU 58.
 2. LINE CLASSIFICATION FOR SAMPLING AND INSTRUMENT CONNECTIONS. A THOSE CONNECTING TO CONDENSERS ARE SHOWN. A THOSE CONNECTING TO CONDENSERS ARE SHOWN.
 3. THOSE CONNECTING TO CONDENSATE SYSTEM INCLUDING ROOT VALVE, ARE SAME AS PROCESS PIPING TO WHICH THEY CONNECT. AFTER THE ROOT VALVE THE CLASSIFICATION IS 104/454 FOR SAMPLING, 515F FOR INSTRUMENTS.
 4. INSTRUMENT ROOT VALVES SHALL BE 1" UNLESS OTHERWISE NOTED.
 5. ROOT, VENT & DRAIN VALVE SEQUENCE NUMBERS ARE PRECEDED BY AN "S" SUBJECT IDENTIFIER. PROCESS VALVE SEQUENCE NUMBERS HAVE AN UNDERSTOOD "V" SUBJECT IDENTIFIER.
 6. VENT & DRAIN LINES WHICH ARE GAPPED, SHALL BE SCREWED CONNECTIONS.
 7. ALL PIPING, VALVES & FITTINGS ARE PROJECT CLASS 454 AND PIPING CLASS 454 UNLESS OTHERWISE NOTED.
 8. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE.
 9. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE.
 10. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE. TO BE CONNECTED TO CONDENSATE PUMPS CONTAIN RELEASED PRESSURE.

SOUTHERN COMPANY SERVICES, INC.
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
CONDENSATE & FEEDWATER SYSTEM
SYSTEM NO. 1305 SHEET 1 OF 3

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NO.	VERSIONS	DATE	CHK	APPV	
JOB NO. 10064	14A08168-1	30.0			
DRAWING CATEGORY: CIVIL					



- REFERENCES:**
1. MAIN CONDENSER OUTLINE DRAWING (BY VENDOR) 104801-25, CONDENSER 'A'
 2. MAIN CONDENSER OUTLINE DRAWING (BY VENDOR) 104801-26, CONDENSER 'B'
 3. MAIN CONDENSER OUTLINE DRAWING (BY VENDOR) 104801-27, CONDENSER 'C'
- NOTES:**
1. LINE CLASSIFICATION FOR SAMPLING AND INSTRUMENT CONNECTIONS: THOSE CONNECTING TO THE COND. & FEEDWATER SYSTEM, INCLUDING ROOT VALVE, ARE SAME AS PROCESS PIPING TO WHICH THEY CONNECT AFTER ROOT VALVE. THE CLASS. IS FOR INSTRUMENTS FOR SAMPLING; 9150 FOR INSTRUMENTS.
 2. INSTRUMENT ROOT VALVES SHALL BE 1" UNLESS OTHERWISE NOTED.
 3. ROOT VALVE & DRAIN VALVE ARE PRECEDED BY AN 'X' MARK. LEAD ALL OTHER VALVE SIG. MUST HAVE AN UNDERSTOOD 'V' SIGN IDENTIFIER.
 4. FLOWMETER FOR SOFT SIGHT PIPING TO RETENTION BASIN OR SUPPORT DRAINING TO CONDENSATE AND FEEDWATER SYSTEM.

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
CONDENSATE & FEEDWATER SYSTEM
SYSTEM NO. 1305 SH1. 2 OF 3

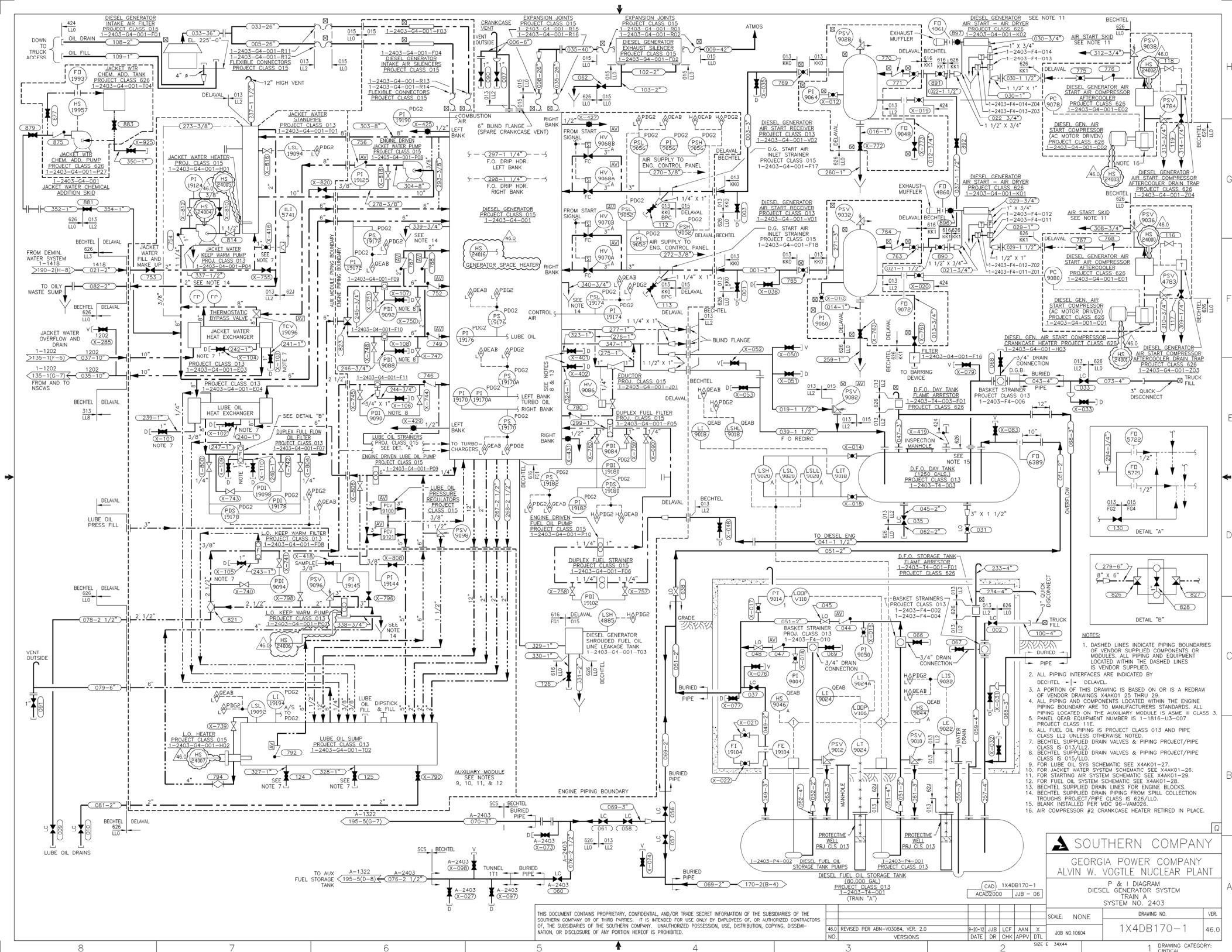
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NO.		VERSIONS			JOB NO. 10004	
						ONE CATEGORY: CRITICAL

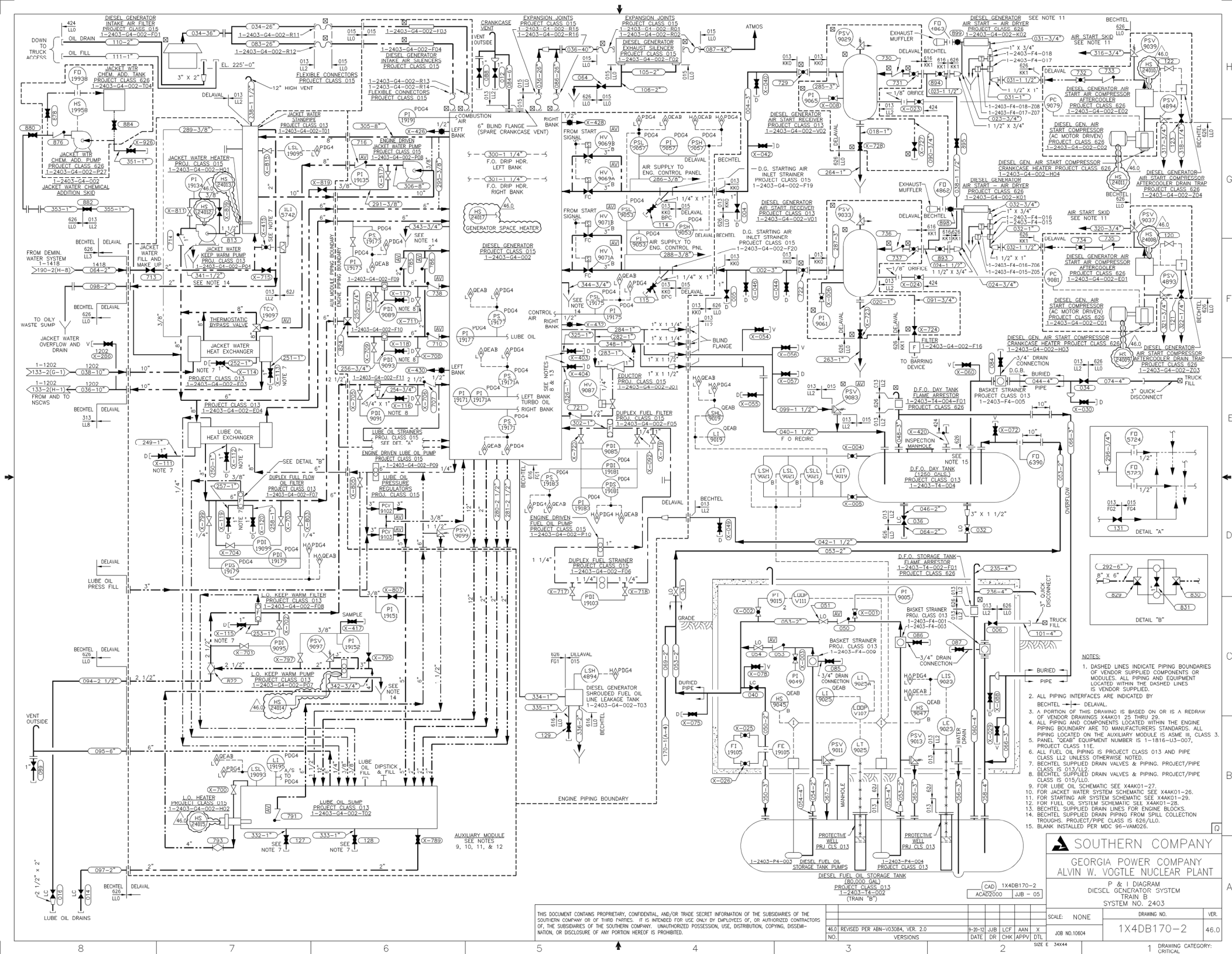


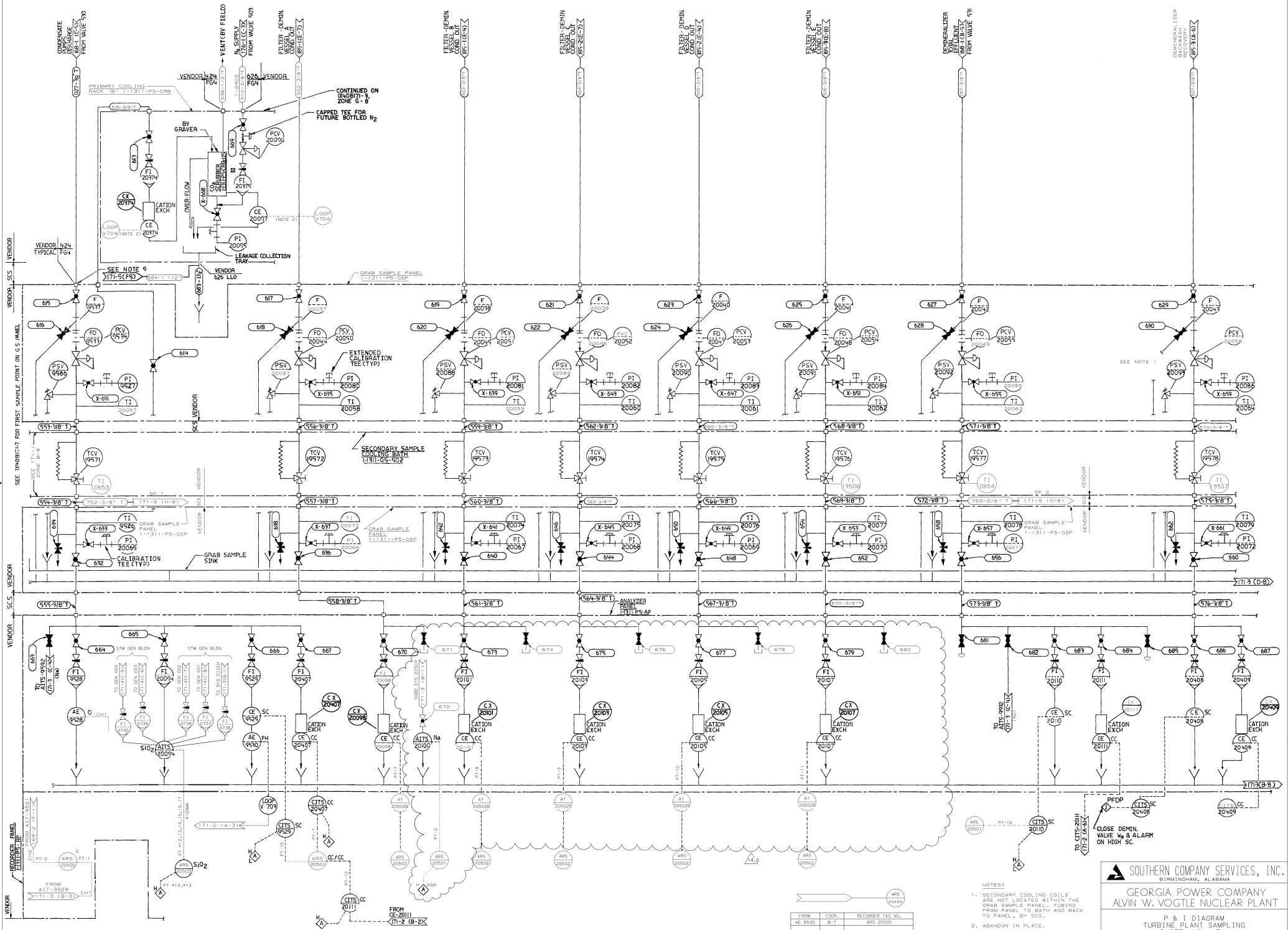
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	35.0	REVISED PER ABN 1039002501J104, VER. 5.0
	NO.	VERSIONS

SCALE: NONE	DRAWING NO.	VER.
JOB NO.10604	1X4DB168-3	35.0


1 DRAWING CATEGORY:







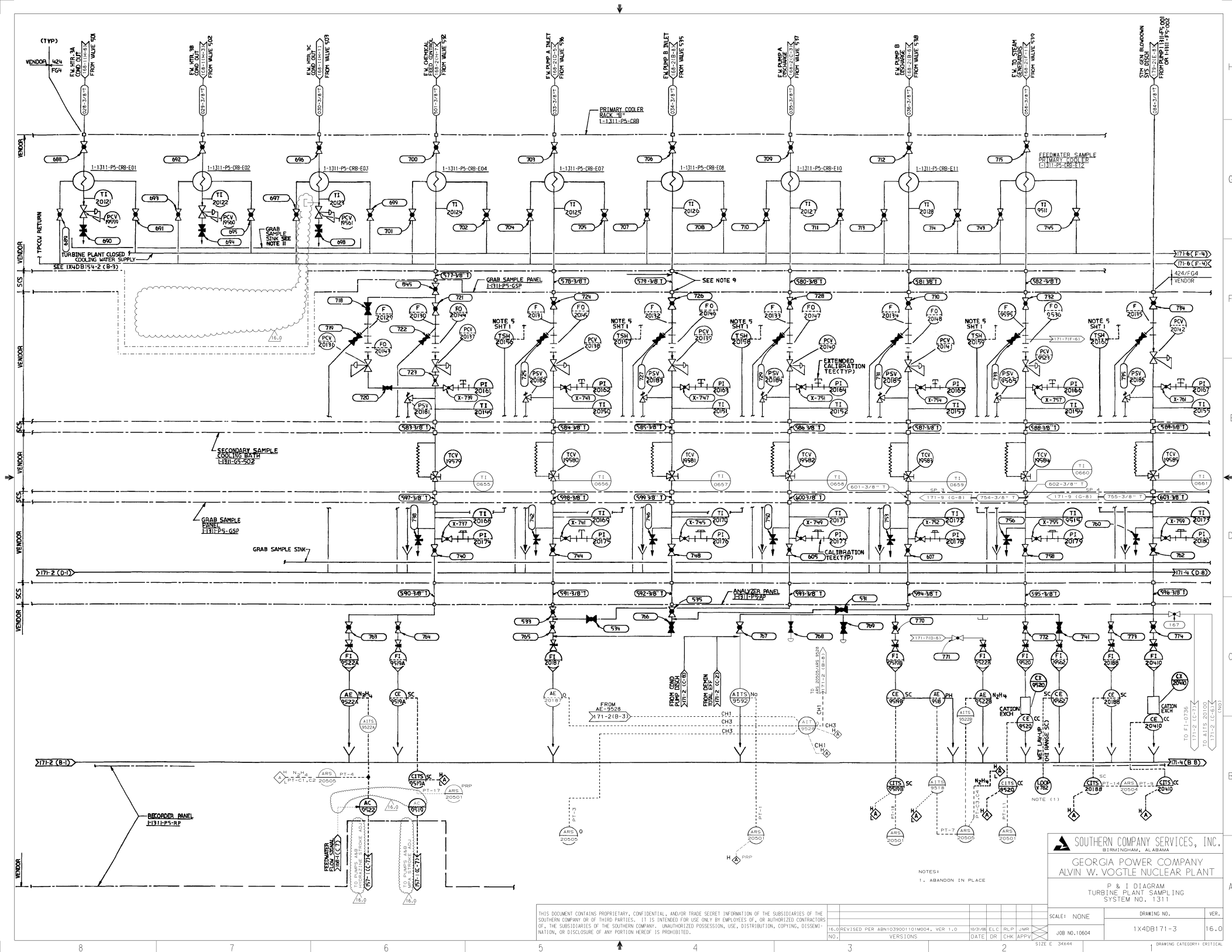
NOTES:
1. SECONDARY COOLING COILS ARE NOT LOCATED WITHIN THE GRAB SAMPLE PANEL. TUBING FROM PANEL TO BATH AND BACK TO PANEL, BY SC'S.
2. ABANDON IN PLACE.

**SOUTHERN COMPANY SERVICES, INC.**
BIRMINGHAM, ALABAMA

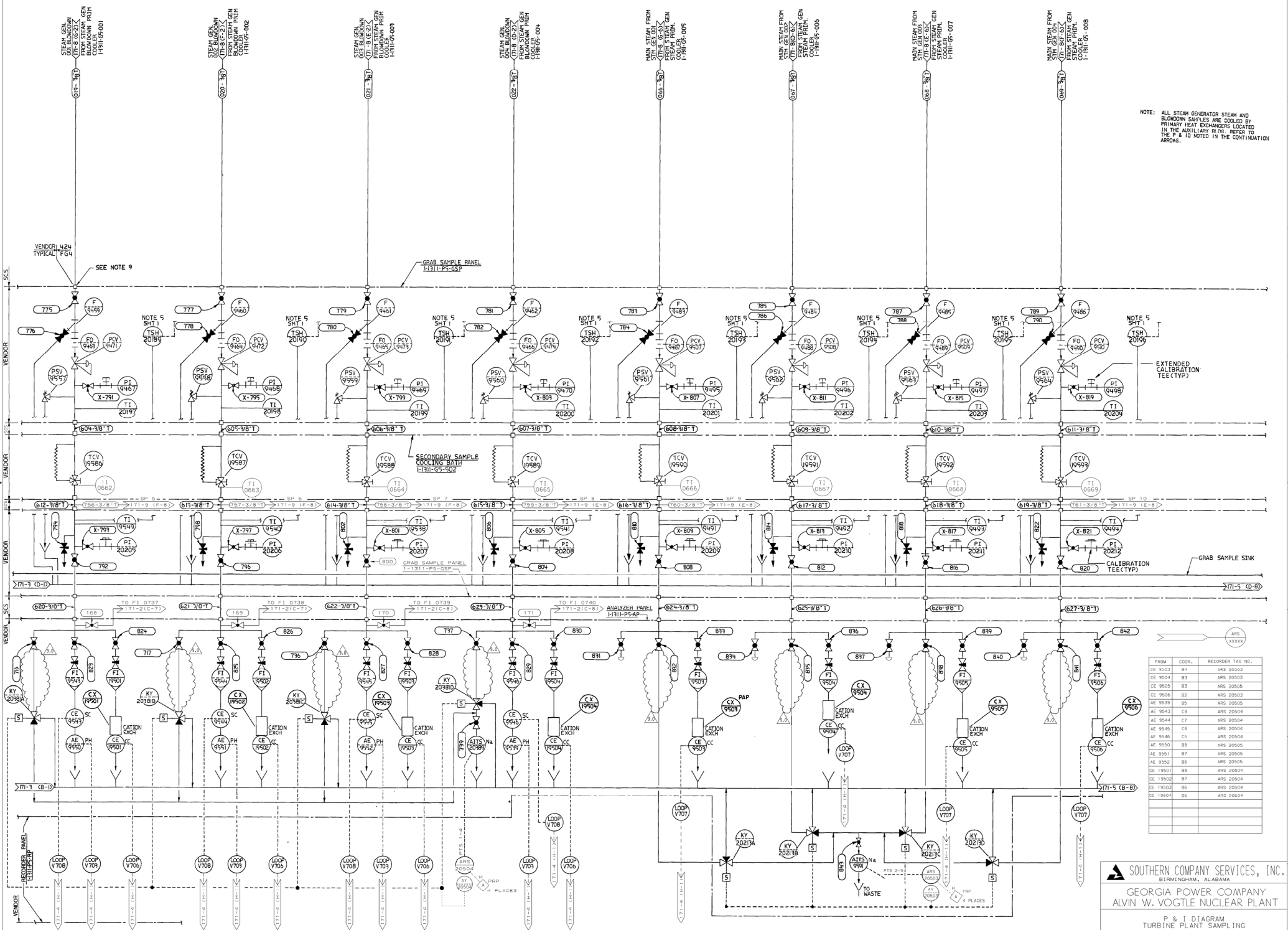
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE PLANT SAMPLING
SYSTEM NO. 1311

FROM	COORD.	RECORDED TAG NO.
AE 9530	B-7	ARS 20509



NOTE: ALL STEAM GENERATOR STEAM AND BLOWDOWN SAMPLES ARE COOLED BY PRIMARY HEAT EXCHANGERS LOCATED IN THE AUXILIARY RING. REFER TO ARROWS. (P & I TO BE NOTED IN THE CONTINUATION ARROWS.)



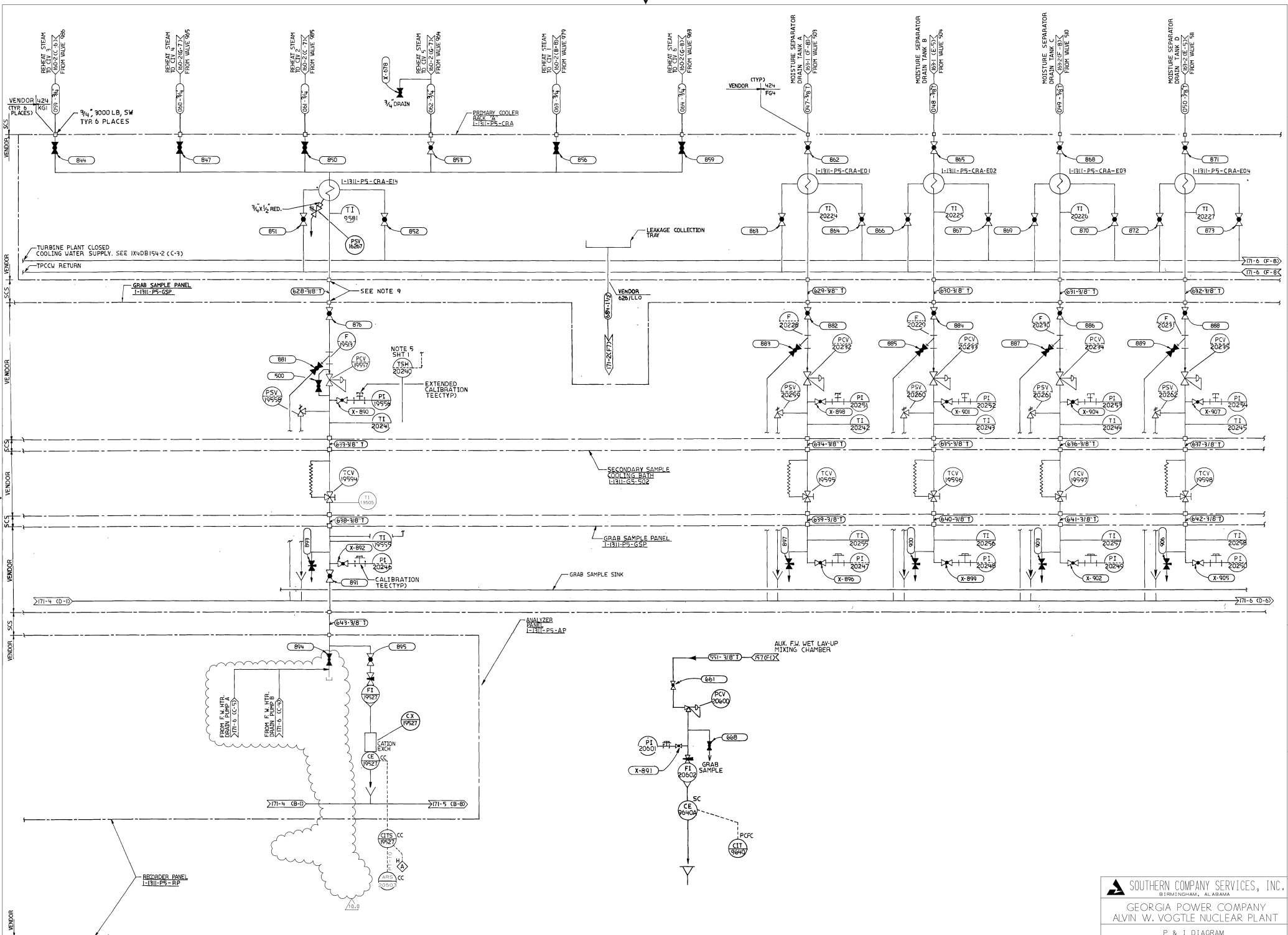
FROM	COORD.	RECORDER TAG NO.
CE 9503	B4	ARS 20503
CE 9504	B3	ARS 20503
CE 9505	B3	ARS 20505
CE 9506	B2	ARS 20503
AE 9539	B5	ARS 20505
AE 9543	C8	ARS 20504
AE 9544	C7	ARS 20504
AE 9545	C6	ARS 20504
AE 9546	C5	ARS 20504
AE 9550	B8	ARS 20505
AE 9551	B7	ARS 20505
AE 9552	B6	ARS 20505
CE 19501	B8	ARS 20504
CE 19502	B7	ARS 20504
CE 19503	B6	ARS 20504
CE 19504	B5	ARS 20504

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE PLANT SAMPLING
SYSTEM NO. 1311

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9.0	REVISED PER ABN-V00192, VER 1.0	9/26/99	ELC	BRH	DEW
DATE	DR	CHK	APPV		
SCALE: NONE	DRAWING NO.	VER.			
JOB NO. 10604	1X4DB171-4	9.0			



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NO.	REVISIONS	DATE	DR	CHK	APPV	SIZE	E	34x44
10.0	REVISED PER ABN-V00192, VER 1.0	06/26/06	ELC	RBH	DEW			

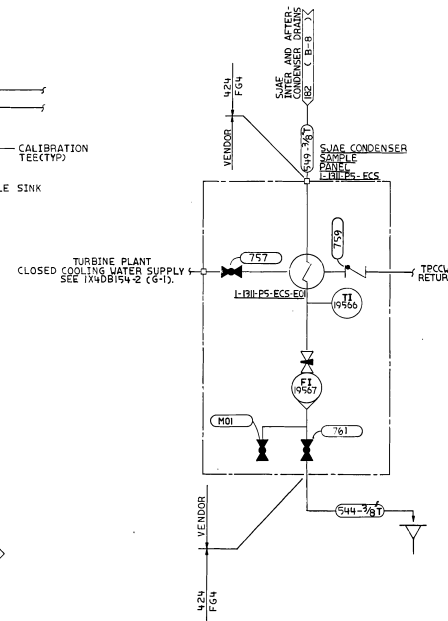
SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

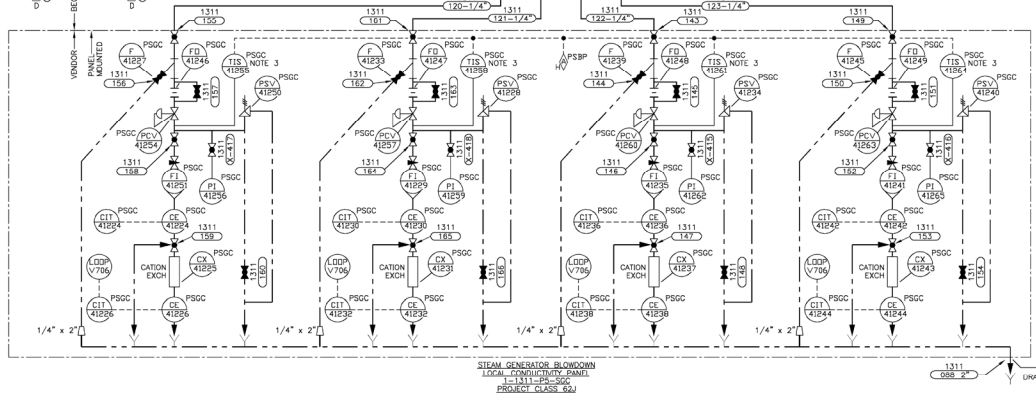
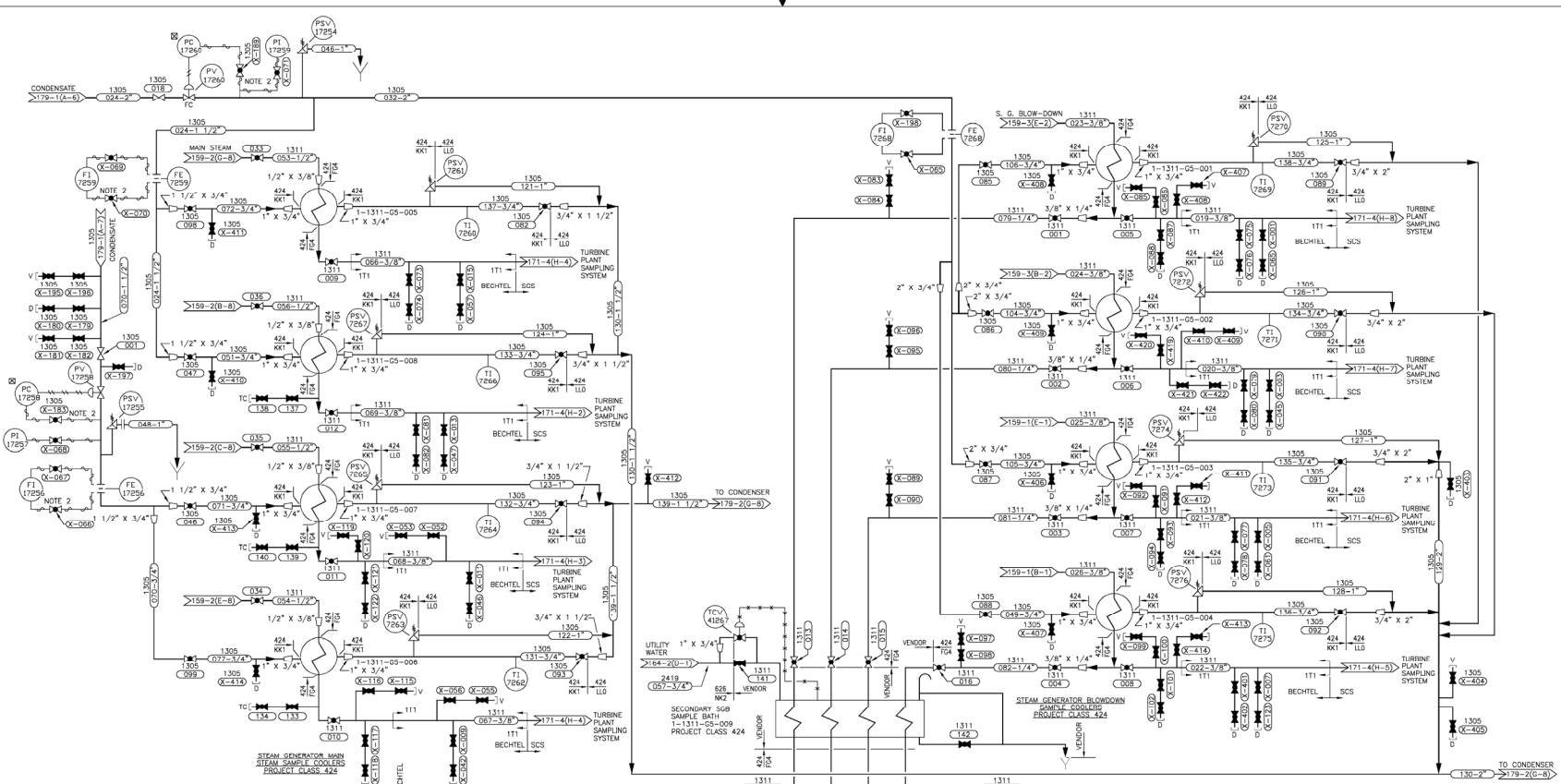
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE PLANT SAMPLING
SYSTEM NO. 1311

SCALE: NONE	DRAWING NO. 1X4DB171-5	VER. 10.0
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OWG CATEGORY: CRITICAL





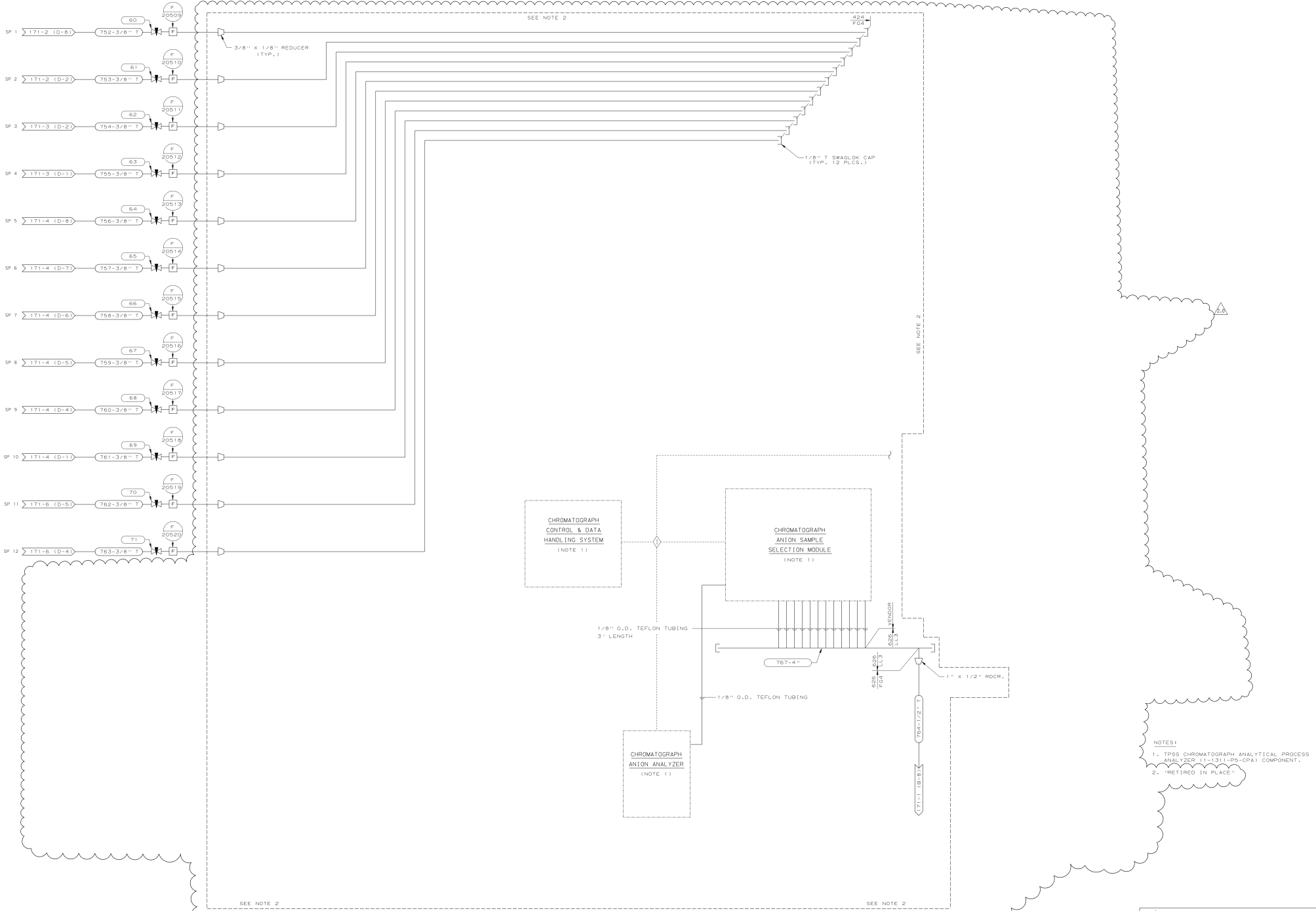
- NOTES:
1. SEE DWG. 1X4DB171-1 FOR APPLICABLE GENERAL NOTES.
 2. PROVIDE HEAT TRACING FOR THE FOLLOWING INSTRUMENTS ON THOSE PORTIONS OF THE SENSING LINES WHICH ARE SUBJECT TO FREEZING: FI-7259, FI-7256, FI-7257, PI-7255, PI-7259 AND PI-7260.
 3. ITS IS USED FOR TEMPERATURE INDICATION ONLY. SWITCH FUNCTION IS NOT BEING UTILIZED.
 4. FOR ALL VENT, DRAIN, AND TEST CONNECTION ISOLATION VALVES, CHECK NFMS AND POMS BEFORE ATTEMPTING REVERSE FLOW. KROSTEST VALVES MAY NOT OPEN FOR REVERSE FLOW.

SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTE NUCLEAR PLANT
 P & I DIAGRAM
 TURBINE PLANT SAMPLING
 SYSTEM 1305, 1311

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20.0	REDRAWN PER ASN-VI0204, VER. 1.0	0.66.00 CYN	LOF	SHS	X
NO.	VEHSURS	DATE	DN	CHK	APPV
3		2			
4		2			
5		2			
6		2			
7		2			
8		2			

SCALE: NONE
 DRAWING NO. 1X4DB171-8
 VER. 20.0
 DRAWING CATEGORY: CRITICAL



- NOTES:
1. TPSS CHROMATOGRAPH ANALYTICAL PROCESS ANALYZER (11-1311-PS-CPA) COMPONENT.
2. "RETIRED IN PLACE"



SOUTHERN COMPANY SERVICES, INC.

BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY

ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM

TURBINE PLANT SAMPLING

SYSTEM NO. 1311

SCALE: NONE	DRAWING NO.	VER.
	1X4DB171-9	2.0

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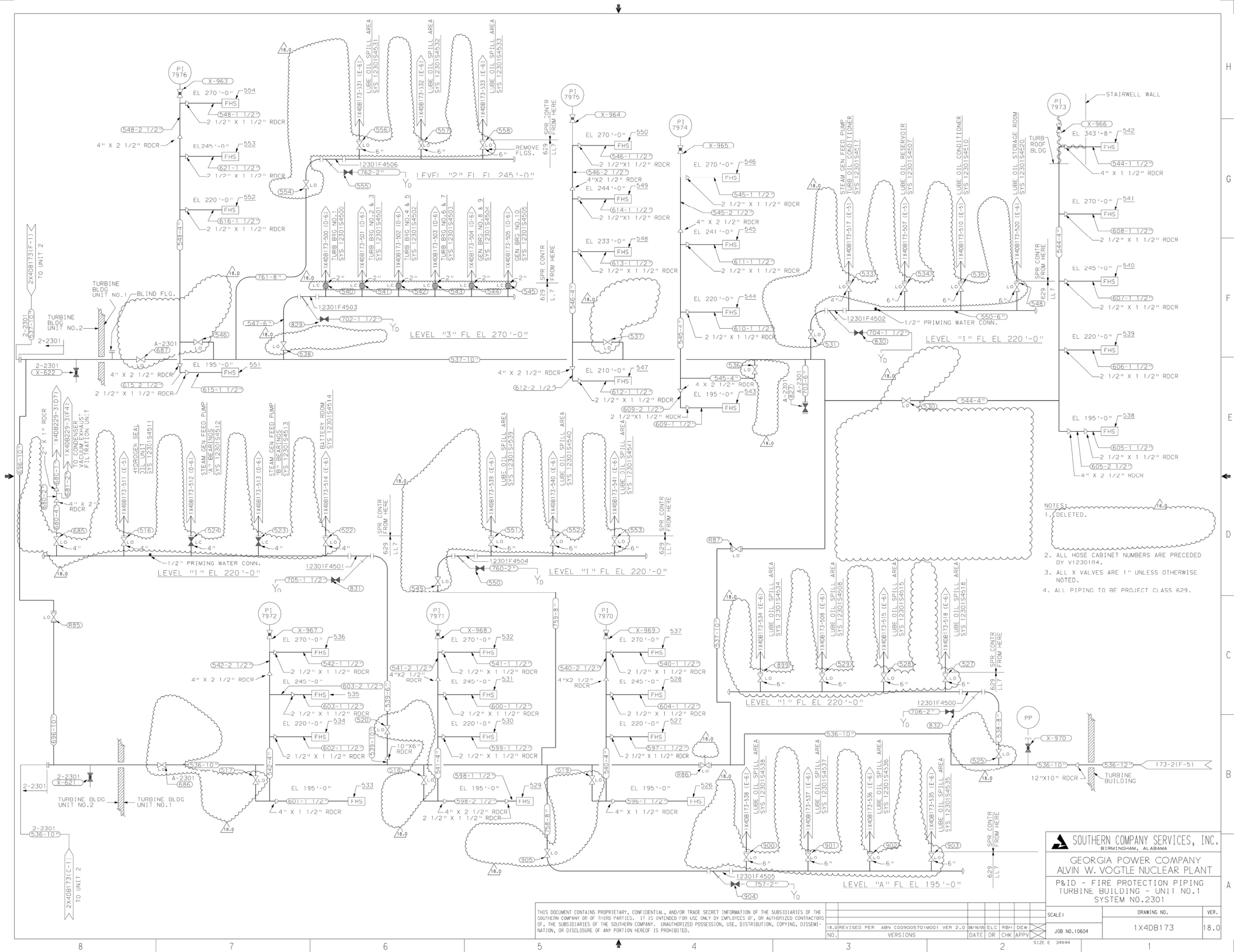
NO.	VERSIONS	DATE	DR	CHK	APPV
2.0	REVISED PER ABN1039001101W0306, VER 2.0	11/29/06	ELC	RBH	JMR

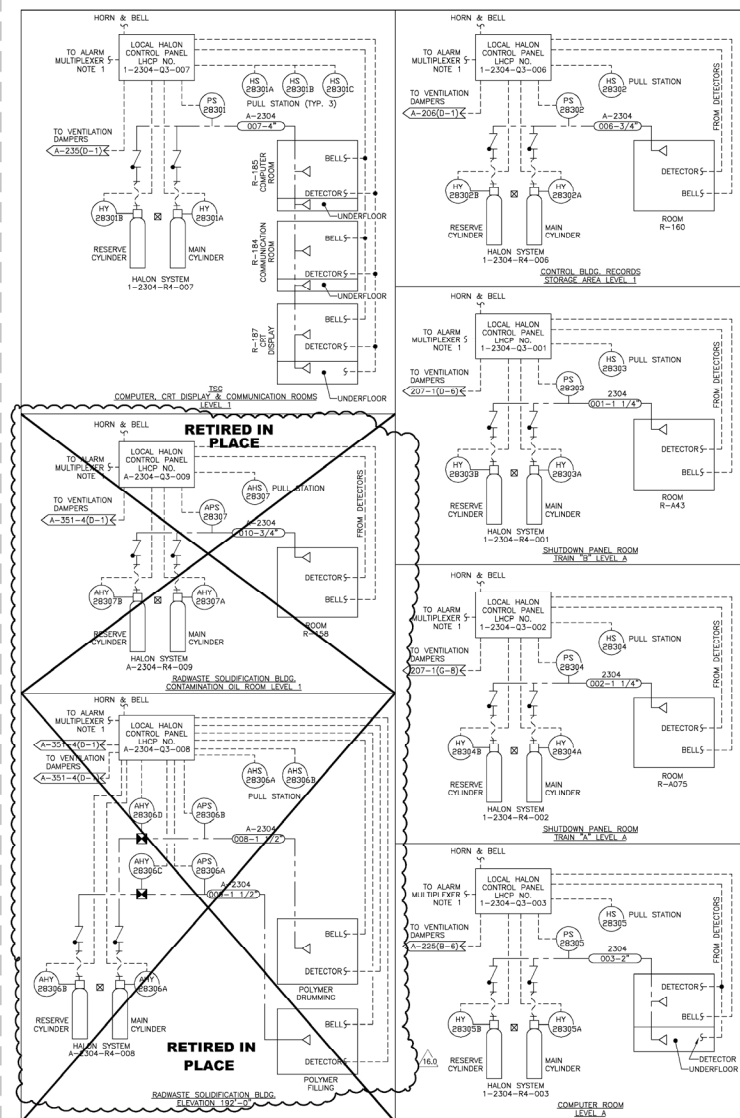
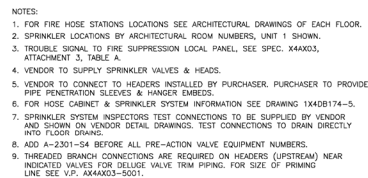
JOB NO.10604

SIZE E 34x44

1


OWG CATEGORY: CRITICAL





NOTES:

1. TO FIRE PROTECTION CONSOLE - QFPC. REFER TO SPEC. X5AQU9 FOR DETAILS.
2. PIPE SUPPORT EMBEDS BY BECHTEL.
3. PIPE PENETRATION SLEEVES BY BECHTEL.
4. PROJECT CLASS 629.
5. ALLOW FOR 1" CONTRACTION PER 100' OF PIPE.
6. ALL PIPING AND EQUIPMENT FOR HALON SYSTEMS BY VENDOR.

	SOUTHERN COMPANY
	GEORGIA POWER COMPANY
	ALVIN W. VOGTLE NUCLEAR PLANT
	P & I DIAGRAM FIRE PROTECTION WATER & HALON SYSTEMS SYSTEM NO. 2301 & 2304

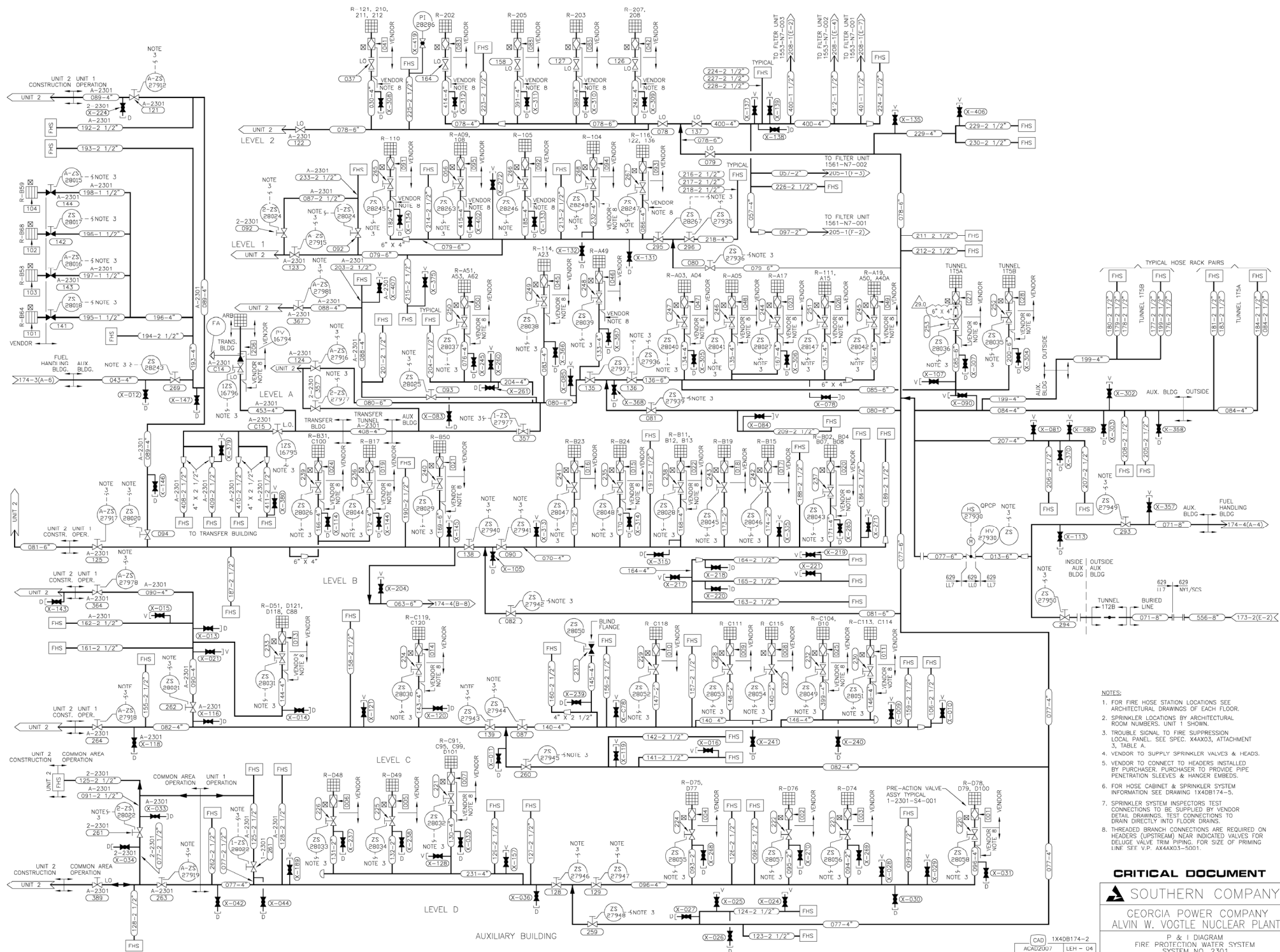
SCALE: NONE	DRAWING NO.	VE
	1X4DB174 1	

X		JOB NO.10604		14DB174-1		16	
DTL							
SIZE E 34X44				1		DRAWING CATEGORY:	

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16.0	REVISED PER ABN-V02569, VER. 1.0	01/19/11	DRW	RAW	AAN
NOT	VERSIOMS	DATE	DR	CHK	APPRV

SCALE: NONE		DRAWING NO.	VE
JOB NO: 10604		1X4DB174-1	16
SIZE E 34X44		DRAWING CATEGORY:	



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REVISIONS

NO.	DESCRIPTION	DATE	BY	CHK	APPV	DLT
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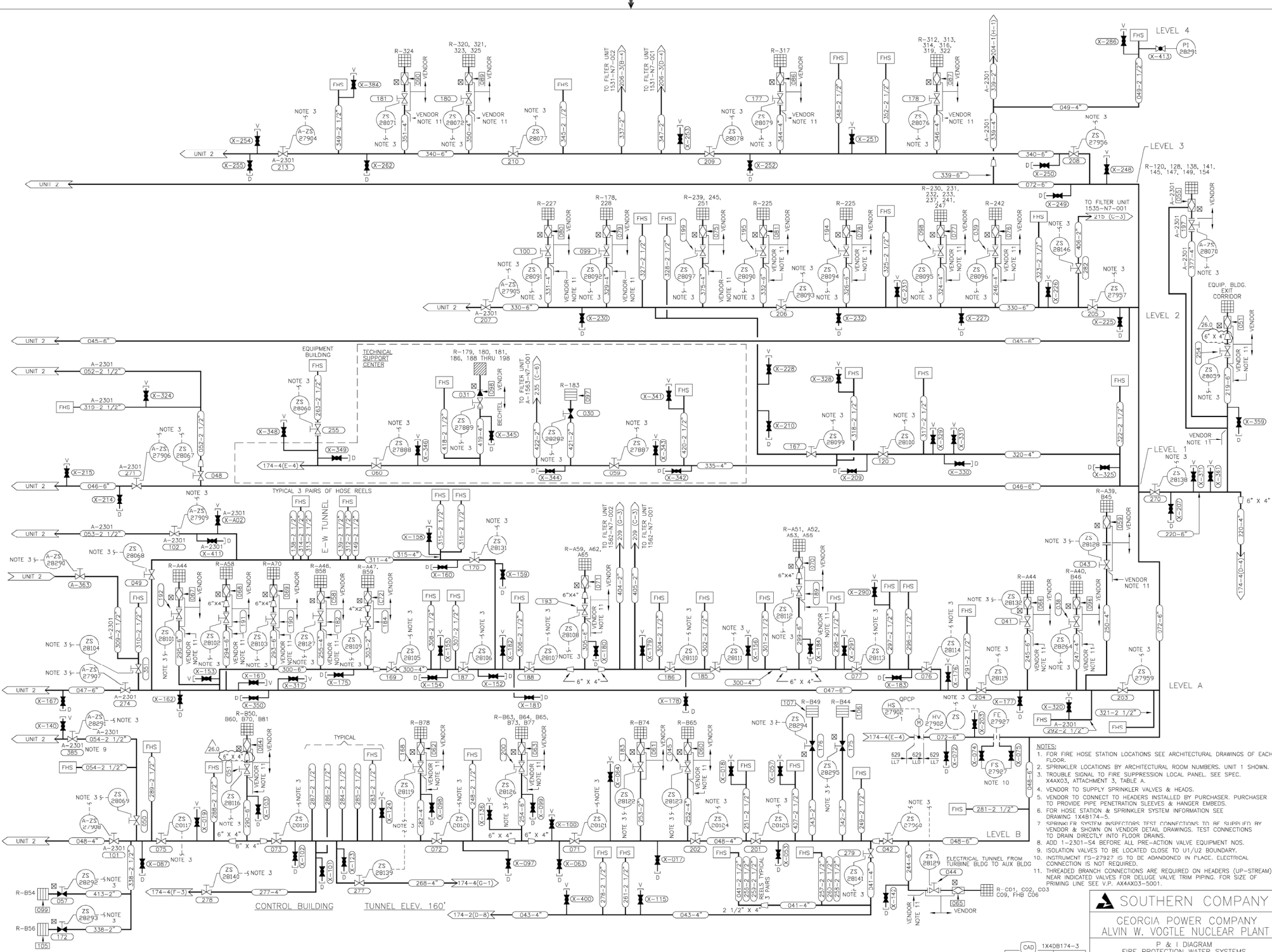
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DRAWING NO. 1X4DB174-2

VER. 29.0

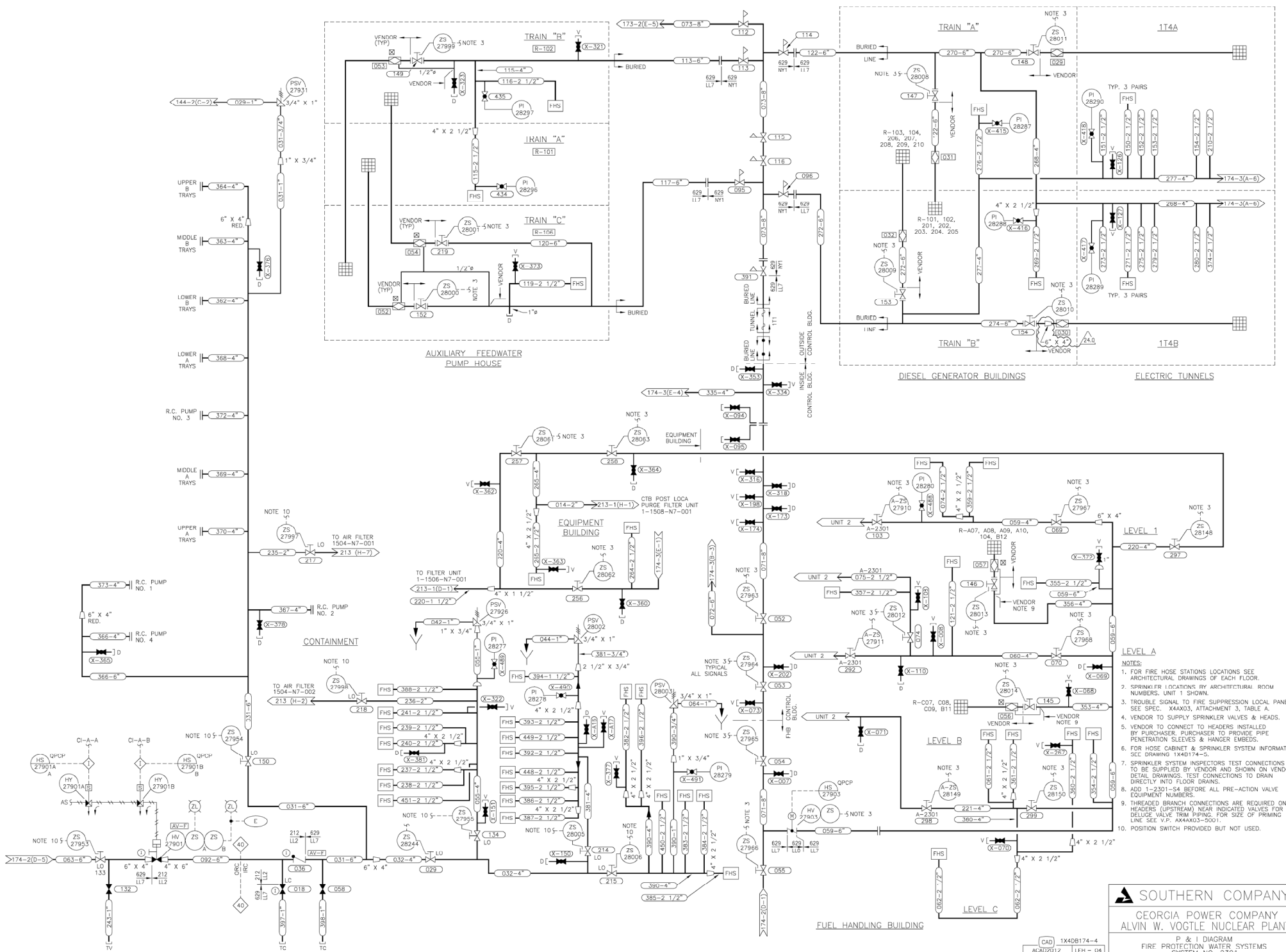
JOB NO. 10604

DRAWING CATEGORY: CRITICAL



- NOTES:
- FOR FIRE HOSE STATION LOCATIONS SEE ARCHITECTURAL DRAWINGS OF EACH FLOOR.
 - SPRINKLER LOCATIONS BY ARCHITECTURAL ROOM NUMBERS, UNIT 1 SHOWN.
 - TROUBLE SIGNAL TO FIRE SUPPRESSION LOCAL PANEL. SEE SPEC.
 - VENDOR TO SUPPLY SPRINKLER VALVES & HEADS.
 - VENDOR TO CONNECT TO HEADERS INSTALLED BY PURCHASER. PURCHASER TO PROVIDE PIPE PENETRATION SLEEVES & HANGER EMBEDS.
 - FOR HOSE STATION & SPRINKLER SYSTEM INFORMATION SEE DRAWING 1X4B174-5.
 - SPRINKLER FIRE SYSTEM INSPECTORS TEST CONNECTIONS TO BE SUPPLIED BY VENDOR & SHOWN ON VENDOR DETAIL DRAWINGS. TEST CONNECTIONS TO DRAIN DIRECTLY INTO FLOOR DRAINS.
 - ADD 1-2301-54 BEFORE ALL PRE-ACTION VALVE EQUIPMENT NOS.
 - ISOLATION VALVES TO BE LOCATED CLOSE TO U1/U2 BOUNDARY.
 - INSTRUMENT F3-27927 IS TO BE ABANDONED IN PLACE. ELECTRICAL CONNECTION IS NOT REQUIRED.
 - NEAR INDICATED VALVES FOR DELUGE VALVE TRIM PIPING. FOR SIZE OF PRIMING LINE SEE V.P. 4X4X03-5001.

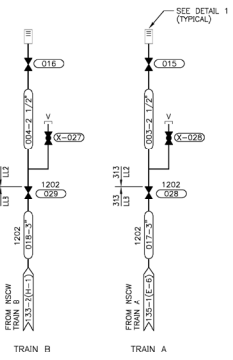
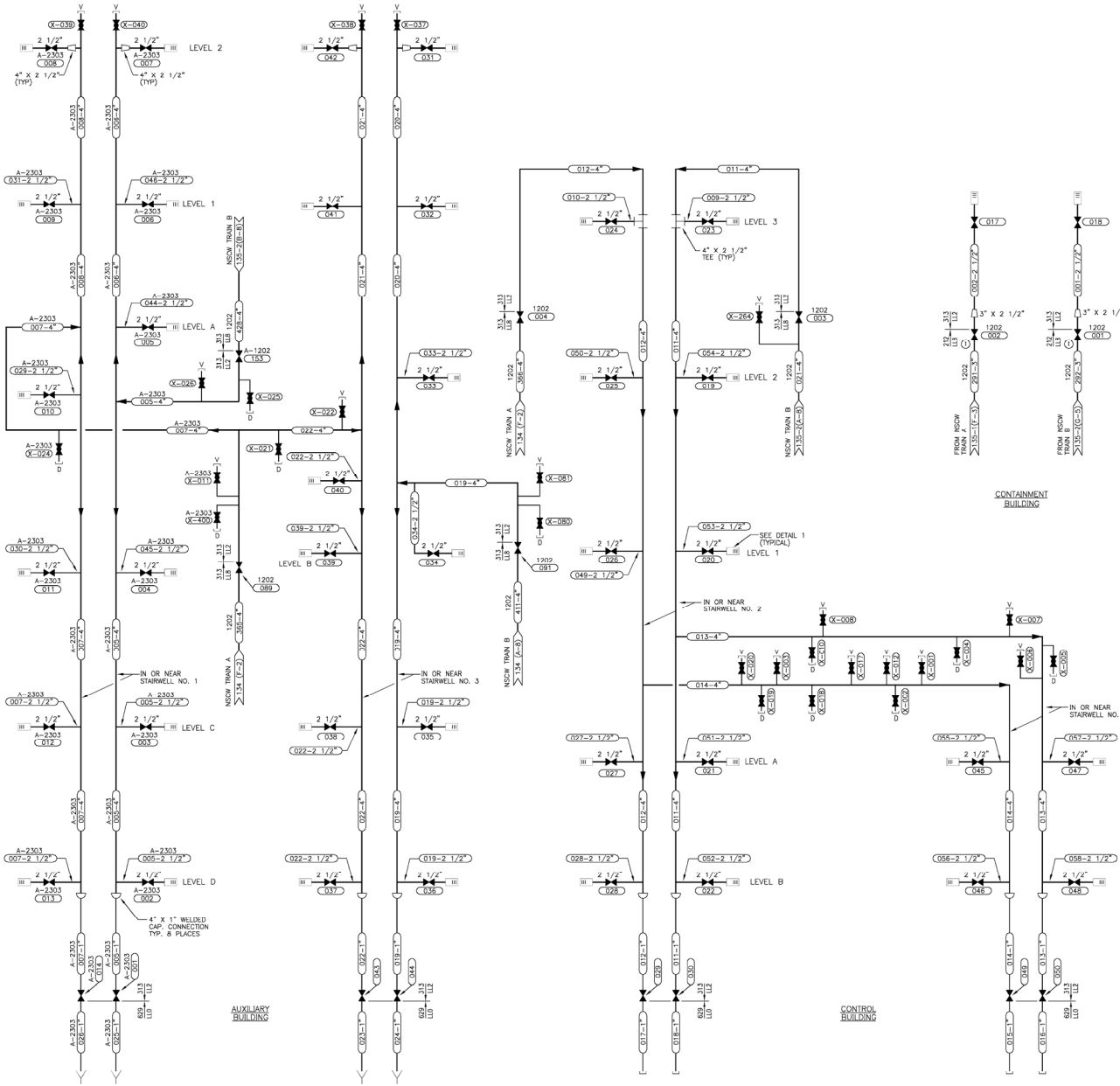
SOUTHERN COMPANY
 GEORGIA POWER COMPANY
 ALVIN W. VOGTLE NUCLEAR PLANT
 FIRE PROTECTION WATER SYSTEMS
 SYSTEM NO. 2301



SOUTHERN COMPANY
 GEORGIA POWER COMPANY
 ALVIN W. VOGTLE NUCLEAR PLANT
 FIRE PROTECTION WATER SYSTEMS
 SYSTEM NO. 2301

CAD 1X4DB174-4
 ACAD2012 LEH - U4

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24.0		REVISED PER ABN 1049020801M076, VER. 1.0				6/12/15		LEH	DCP	MMW	DLT	JOB NO.10604		1X4DB174-4		24.0			
NO.		VERSIONS				DATE		DR	CHK	APPV	OVL	SIZE E 34X64		DRAWING CATEGORY:					
5	↑	4	3	2	1	DRAWING CATEGORY:													



- NOTES:
1. ALL PIPING AND VALVES ARE PROJECT CLASS 315 AND MATERIAL SPECIFICATION L12 UNLESS OTHERWISE NOTED.
 2. ALL 2 1/2" VALVES WITH FIRE HOSE COUPLINGS ARE TO BE LOCATED IN OR NEAR THE STAIRWELLS AND AT AN ELEVATION ABOVE THE FLOOR.
 3. ALL HOSE CONNECTIONS TO BE 2 1/2" NST THREADS.
 4. ALL HOSE CONNECTIONS DOWNSTREAM OF NORMALLY CLOSED ISOLATION VALVES ARE PROJECT CLASS 629.
 5. DETAIL 1 APPLIES TO ALL HOSE CONNECTIONS.

SOUTHERN COMPANY
 GEORGIA POWER COMPANY
 ALVIN W. VOGTLE NUCLEAR PLANT

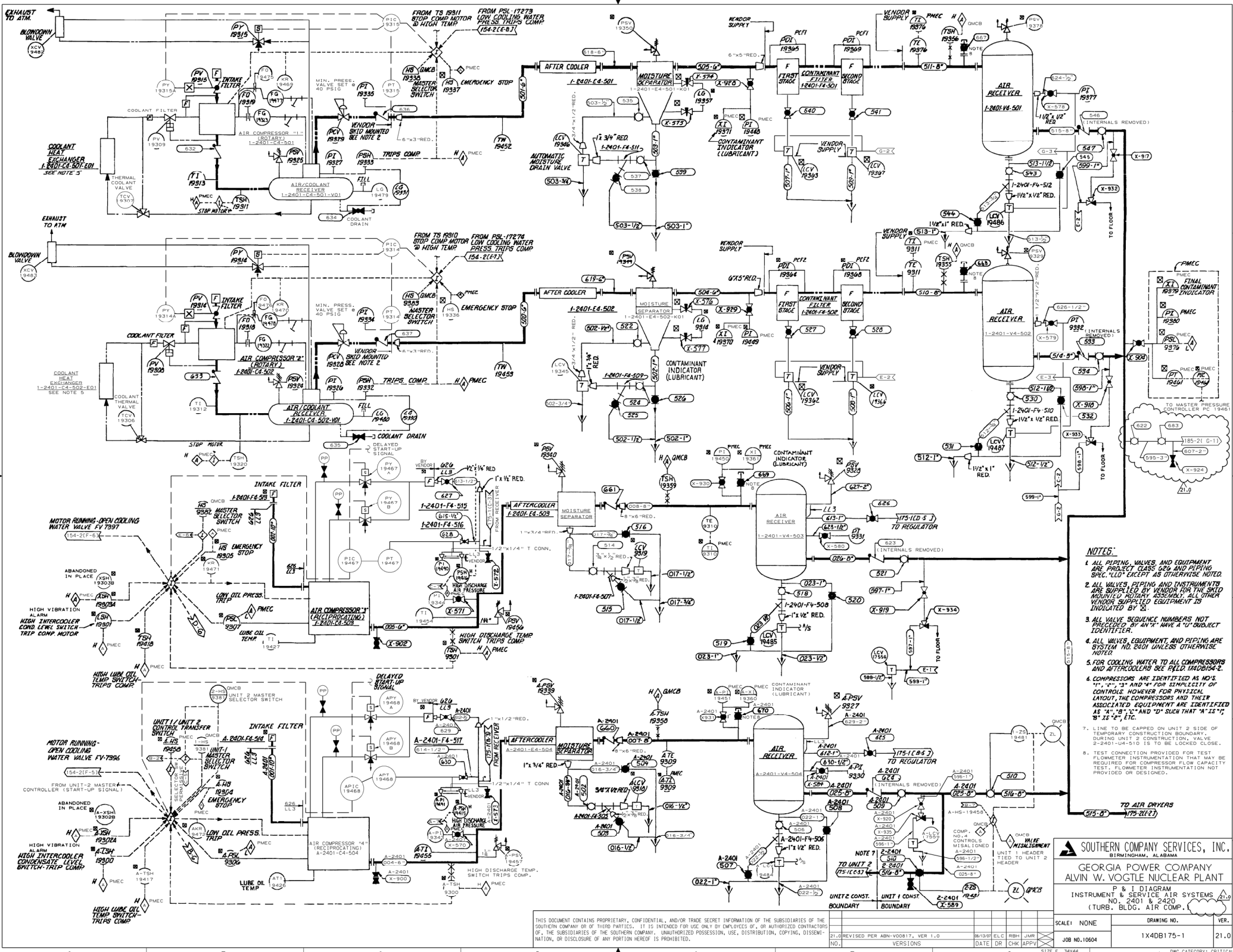
CAD 1X4DB174-6
 ACAD2002 CYN - 01

SCALE: NONE
 DRAWING NO. 1X4DB174-6
 VER. 15.0

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REDRAWN PER ABN-52274, VER. 1.0
 DATE: JUN / CHK: JPH/UTL
 SIZE: 34844

1 DRAWING CATEGORY: CRITICAL

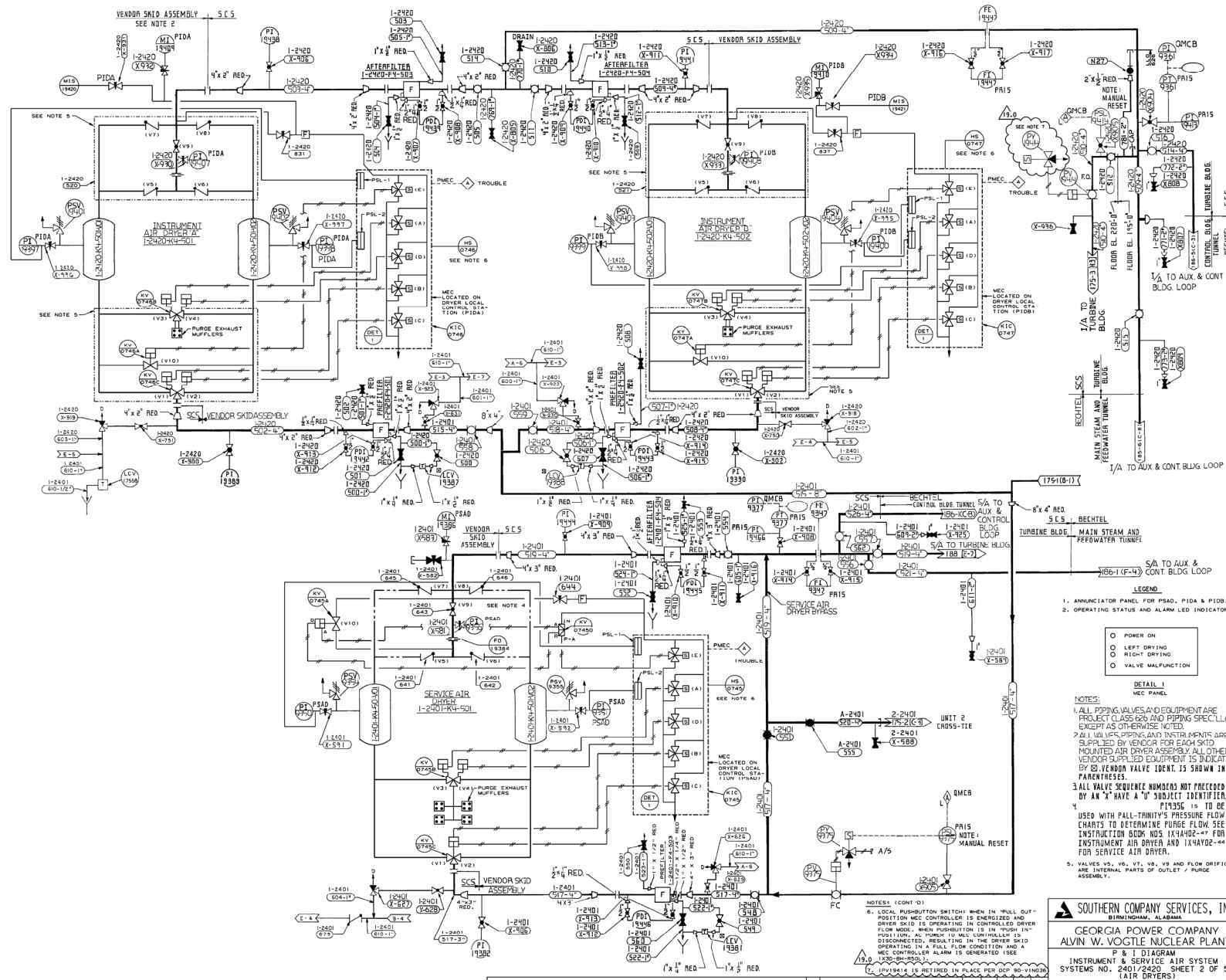


- NOTES:**
1. ALL PIPING, VALVES, AND EQUIPMENT ARE PROJECT CLASS 520 AND PIPING SPEC. "LLO" EXCEPT AS OTHERWISE NOTED.
 2. ALL VALVES, PIPING, AND INSTRUMENTS ARE SUPPLIED BY VENDOR FOR THE SHIP MOUNTED ROTARY ASSEMBLY. ALL OTHER VENDOR SUPPLIED EQUIPMENT IS UNLESS OTHERWISE NOTED.
 3. ALL VALVE SCHEDULE NUMBERS NOT PRECEDED BY AN "X" HAVE A "D" SUBJECT IDENTIFIER.
 4. ALL VALVES, EQUIPMENT, AND PIPING ARE SYSTEM NO. 2401 UNLESS OTHERWISE NOTED.
 5. FOR COOLING WATER TO ALL COMPRESSORS AND AFTERCOOLERS SEE P&ID 140054-2.
 6. COMPRESSORS ARE IDENTIFIED AS NO. 1, 2, 3, AND 4 FOR IDENTIFICATION OF CONTROLS. HOWEVER FOR PHYSICAL LAYOUT, THE COMPRESSORS AND THEIR ASSOCIATED EQUIPMENT ARE IDENTIFIED AS "A", "B", "C", AND "D" SUCH THAT "A" IS "1", "B" IS "2", ETC.
 7. LINE TO BE CAPPED ON UNIT 2 SIDE OF TEMPORARY CONSTRUCTION BOUNDARY. DURING UNIT 2 CONSTRUCTION, VALVE 2-2401-14-510 IS TO BE LOCKED IN CLOSE.
 8. TEST CONNECTION PROVIDED FOR FLOWMETER INSTRUMENTATION THAT MAY BE REQUIRED FOR COMPLETION OF CAPACITY TEST. FLOWMETER INSTRUMENTATION NOT PROVIDED OR DESIGNED.

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
INSTRUMENT & SERVICE AIR SYSTEMS
(TURB. BLDG., AIR COMP.)



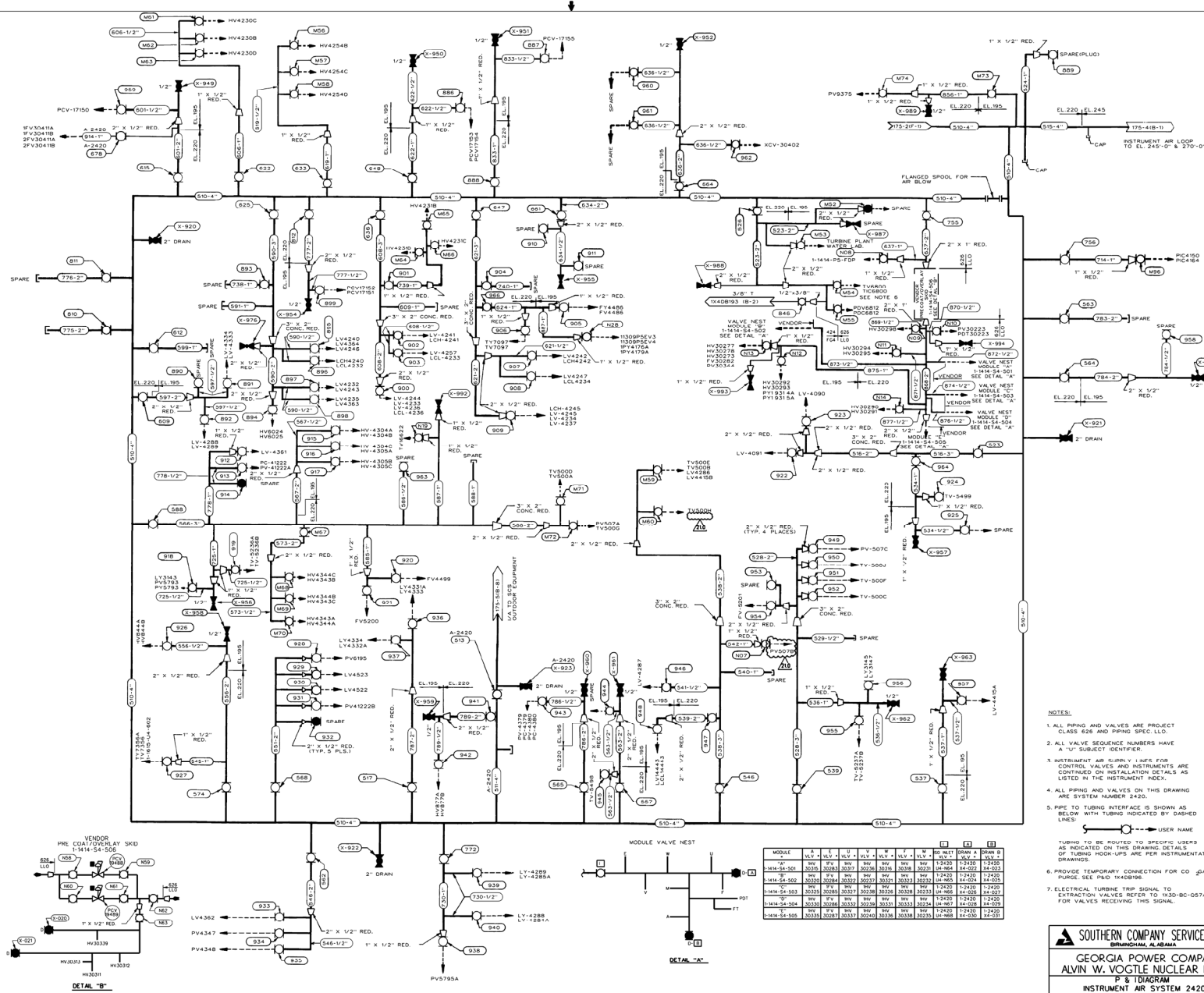
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SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
INSTRUMENT & SERVICE AIR SYSTEM
SYSTEMS NOS. 2401/2420, SHEET 2 OF 5
(AIR DRIVERS)

SCALE: NONE	DRAWING NO. 1X40B175-2	VER. 19.0
REVISIONS	DATE	DR. (CHG.)
1. REVISED PER ABN-V03619, VERSION 1	30-11-1981	SD JCO
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100. REVISED PER ABN-V03619, VERSION 1	30-11-1981	SD JCO



- NOTES:
1. ALL PIPING AND VALVES ARE PROJECT CLASS 626 AND PIPING SPEC. LLO.
 2. ALL VALVE SEQUENCE NUMBERS HAVE A "V" SUBJECT IDENTIFIER.
 3. INSTRUMENT AIR SUPPLY LINE FOR CONTROL VALVES AND INSTRUMENTS ARE CONTAINED ON INSTALLATION DETAILS AS LISTED IN THE INSTRUMENT INDEX.
 4. ALL PIPING AND VALVES ON THIS DRAWING ARE SYSTEM NUMBER 2420.
 5. PIPE TO TUBING INTERFACE IS SHOWN AS BELOW WITH TUBING INDICATED BY DASHED LINES:
 6. PROVIDE TEMPORARY CONNECTION FOR CO. GAS PURGE, SEE P&ID 1440000.
 7. ELECTRICAL TURBINE TRIP SIGNAL TO EXTRACTION VALVES REFER TO 1430-BC-057A FOR VALVES RECEIVING THIS SIGNAL.

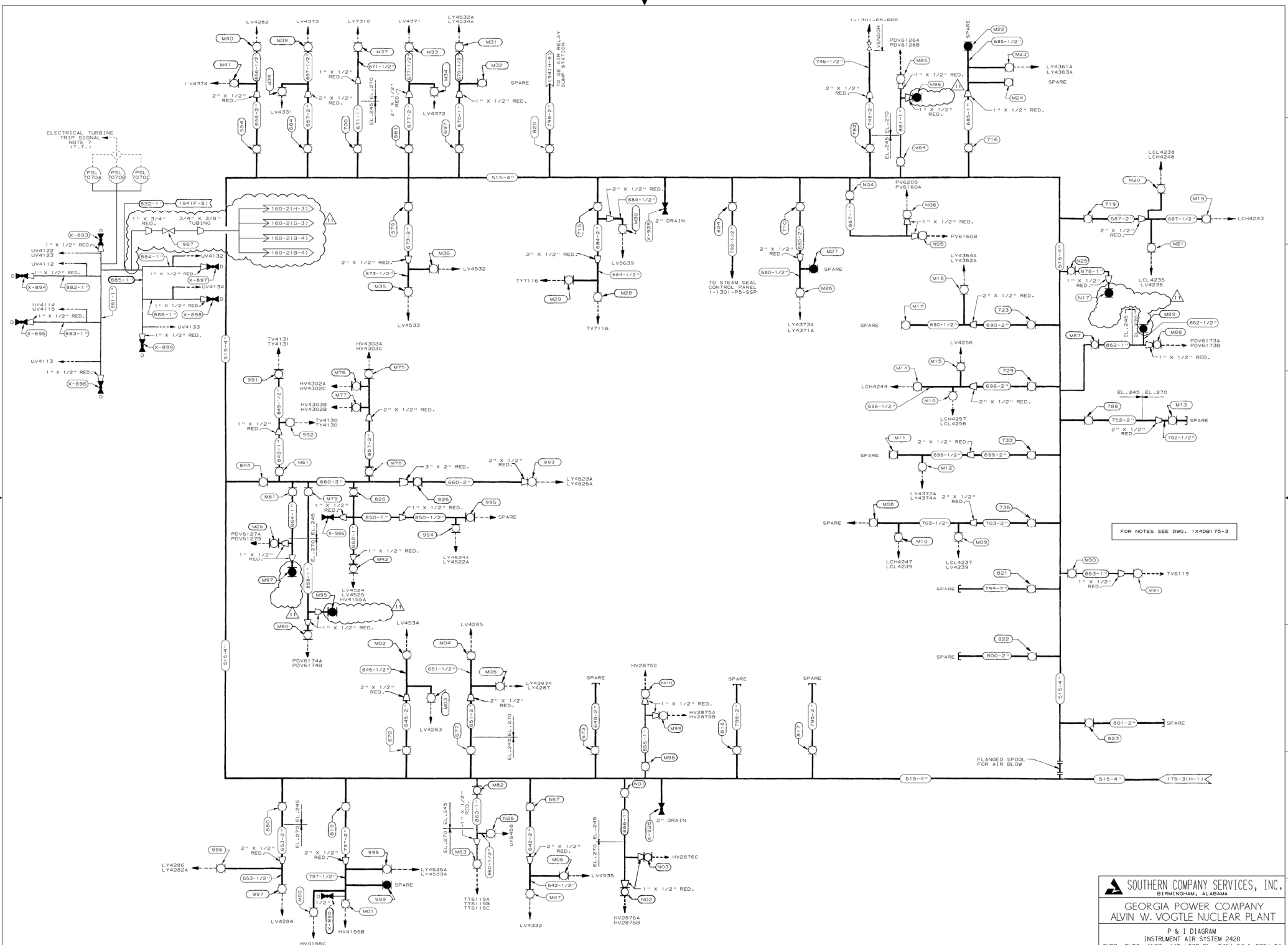
SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
P & ID DIAGRAM
INSTRUMENT AIR SYSTEM 2420
TURB. BLDG. INST. AIR LOOP
EL. 195 & EL. 220

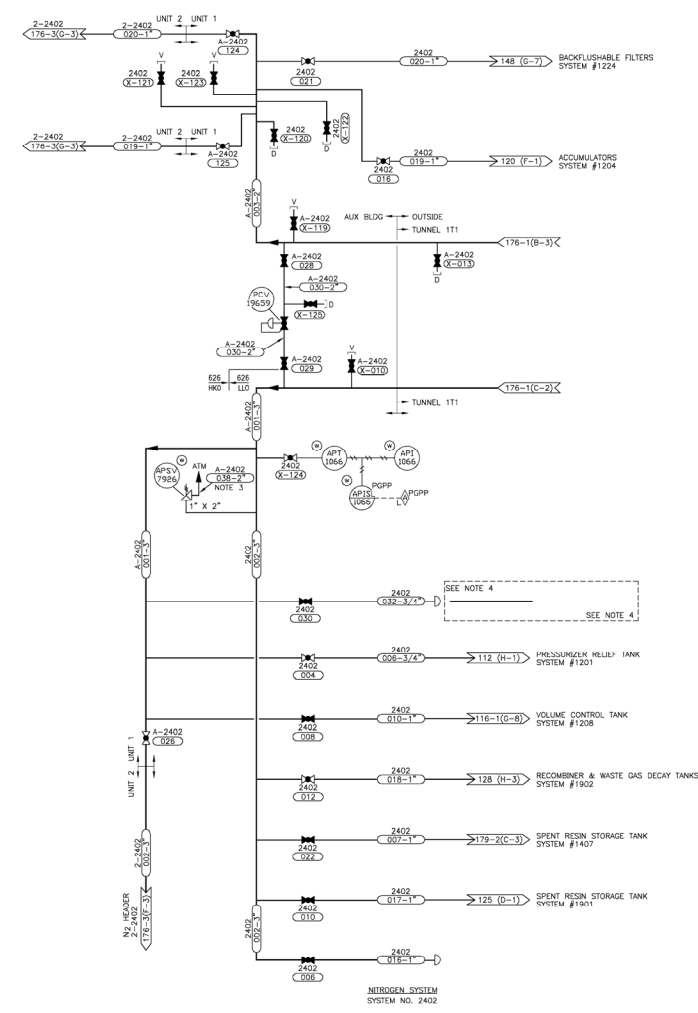
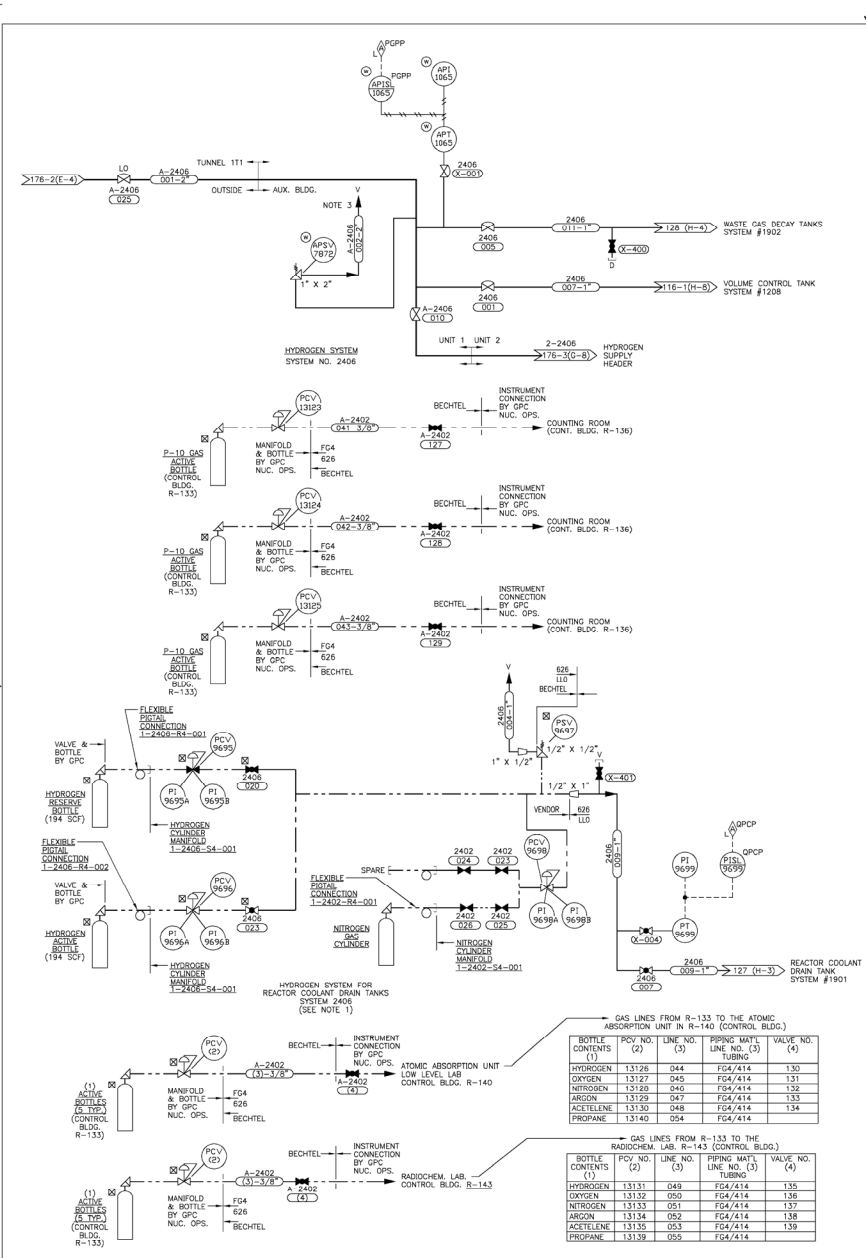
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REVISIONS									
NO.	DATE	DESCRIPTION	BY	CHKD	APP'D	DATE	DESCRIPTION	BY	CHKD
210	REVISED PER ABN 10703340029, VER. 1.0.								
209									

SCALE: NONE		DRAWING NO.		VER.	
		1X4DB175-3		210	



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INCORP. PER ABN-33989		ISSUED FOR CONSTRUCTION		DATE		CHK		APPV	
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- NOTES:**
1. LOCATE REACTOR COOLANT DRAIN TANK HYDROGEN SUPPLY BOTTLES (2) EAST OF THE MAIN STEAM VALVE ROOM AT GRADE (EL. 220'-0").
 2. DELTET.
 3. VENT OUTSIDE BLDG.
 4. "RETIRED IN PLACE".

SOUTHERN COMPANY

GEORGIA POWER COMPANY

ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM

AUXILIARY GAS SYSTEMS

SYSTEMS 2402 & 2406

CAD 1X4DB176-3

ACAD2004 CYN - 01

SCALE: NONE

JOB NO. 10804

DATE: 1/11/86

BY: JCH

CHK: JCH

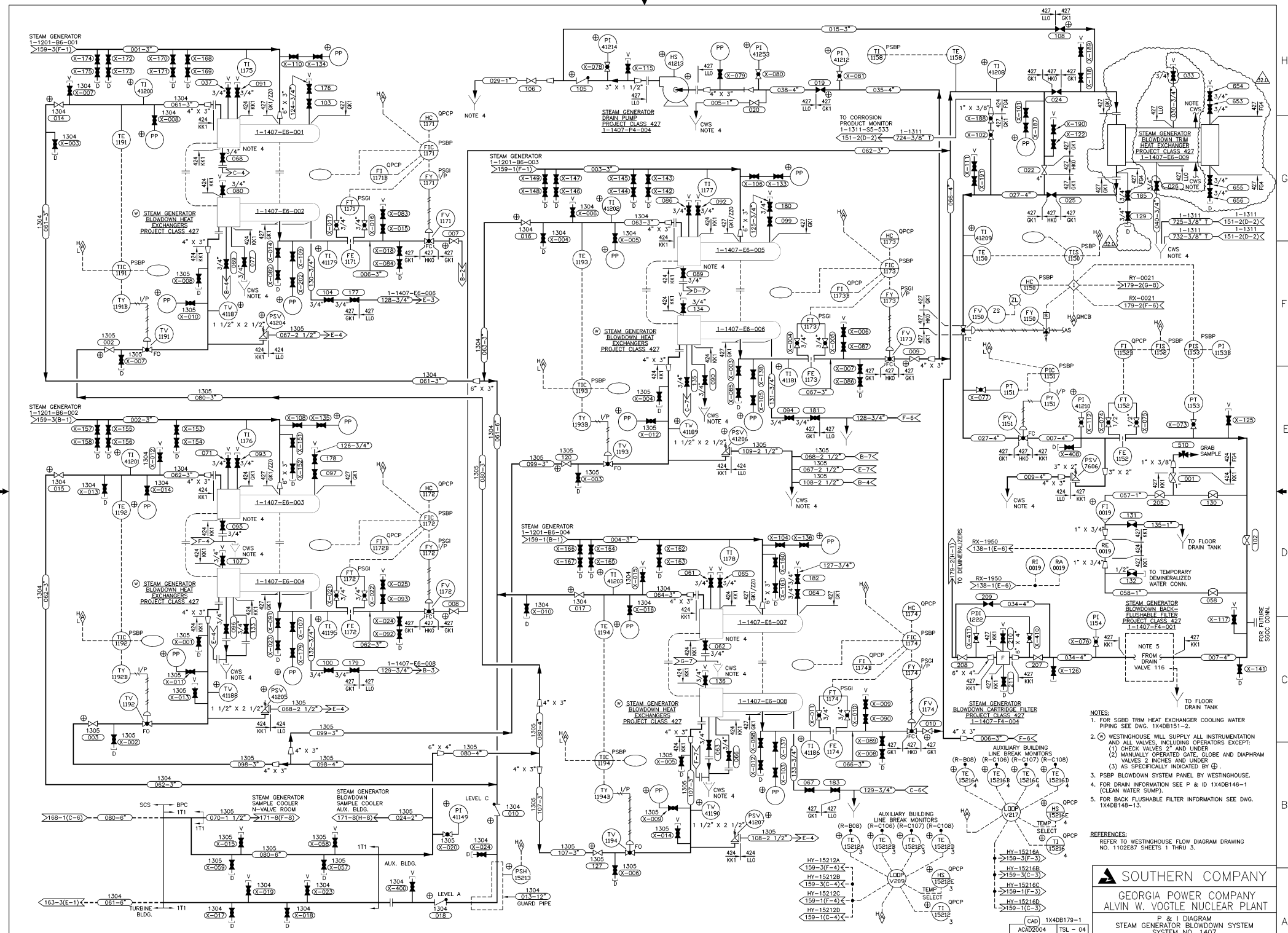
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DRAWING NO. 1X4DB176-3

VER. 24.0


1. DRAWING CATEGORY: CRITICAL

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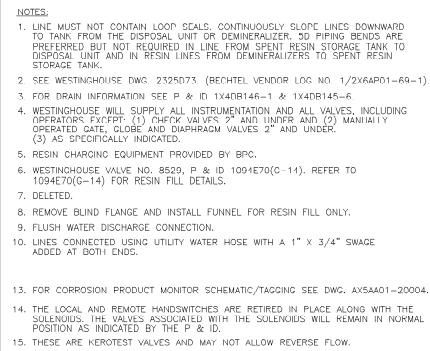
- NOTES:
- FOR SGBD TRIM HEAT EXCHANGER COOLING WATER PIPING SEE DWG. 1X4DB151-2.
 - WESTINGHOUSE WILL SUPPLY ALL INSTRUMENTATION AND ALL VALVES, INCLUDING OPERATORS EXCEPT:
(1) CHECK VALVES 2" AND UNDER
(2) MANUALLY OPERATED GATE, GLOBE AND DIAPHRAM VALVES 2 INCHES AND UNDER
(3) AS SPECIFICALLY INDICATED BY @.
 - PSBP BLOWDOWN SYSTEM PANEL BY WESTINGHOUSE.
 - FOR DRAIN INFORMATION SEE P & ID 1X4DB146-1 (CLEAN WATER SUMP).
 - FOR BACK FLUSHABLE FILTER INFORMATION SEE DWG. 1X4DB148-13.

REFERENCES:
REFER TO WESTINGHOUSE FLOW DIAGRAM DRAWING NO. 1102E87 SHEETS 1 THRU 3.




SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
P & I DIAGRAM
STEAM GENERATOR BLOWDOWN SYSTEM
SYSTEM NO. 1407

CAD 1X4DB179-1
ACAD2004 TSL - 04



DEMINERALIZED FRESH RESIN CHARGING STATIONS						
DEMIN. TANK NO.	DESCRIPTION	P & E ID (CONVNO)	1/FVT	VALVE NO.		
1-1208-08-004	THERMAL REGEN.	1X40B117(C)-8	A	237		
1-1208-08-005	THERMAL REGEN.	1X40B117(C)-9	A	238		
1-1208-08-006	THERMAL REGEN.	1X40B117(C)-5	A	235		
1-1208-08-007	THERMAL REGEN.	1X40B117(C)-6	A	234		
1-1208-08-008	THERMAL REGEN.	1X40B117(C)-2	A	233		
1-1213-00-001	SPENT FUEL PIT	1X40B130(C)-7	A	214		
1-1401-00-002	SILAM GEN. BLOWDOWN	1HS DWS (H)-2	A	044		
1-1401-00-003	SILAM GEN. BLOWDOWN	1HS DWS (H)-1	A	043		
SPARE						
1-1208-06-001	CVCS GATION BED	1X40B1150(C)-2	A	073		
1-1208-06-002	CVCS MIXED BED	1X40B1130(C)-5	A	050		
1-1208-06-003	CVCS MIXED BED	1X40B1150(C)-4	A	053		
1-1208-06-004	WASTE MIXED BED TANK	1X40B1280-9	A	060		
1-1901-00-001	WASTE VAPOR CONDENSATE	1X40B1240(C)-3	C	095		
1-2412-00-001	URINE BLEND. MIXED BED	1X40B1180(C)-2	A	024		
1-2412-04-001	TURB. BLD. MIXED BED	1X40B180-7(C)-4	C	074		
1-2410-00-001	RECYCLE VAP. FEED	AX40B121(C)-6	C	009		
1-2410-00-002	RECYCLE VAP. FEED	AX40B121(C)-5	C	010		
A-1210-06-003	RECYCLE VAP. CONDENSATE	AX40B123-2(C)-4	C	106		

REFER TO WESTINGHOUSE FLOW DIAGRAMS, DRAWING NO.
1102E87. SHEETS 1 THRU 3. (BECHTEL VENDOR LOG NOS.
1XPAP01-4, -5, AND -6 RFPSECTIVITY).

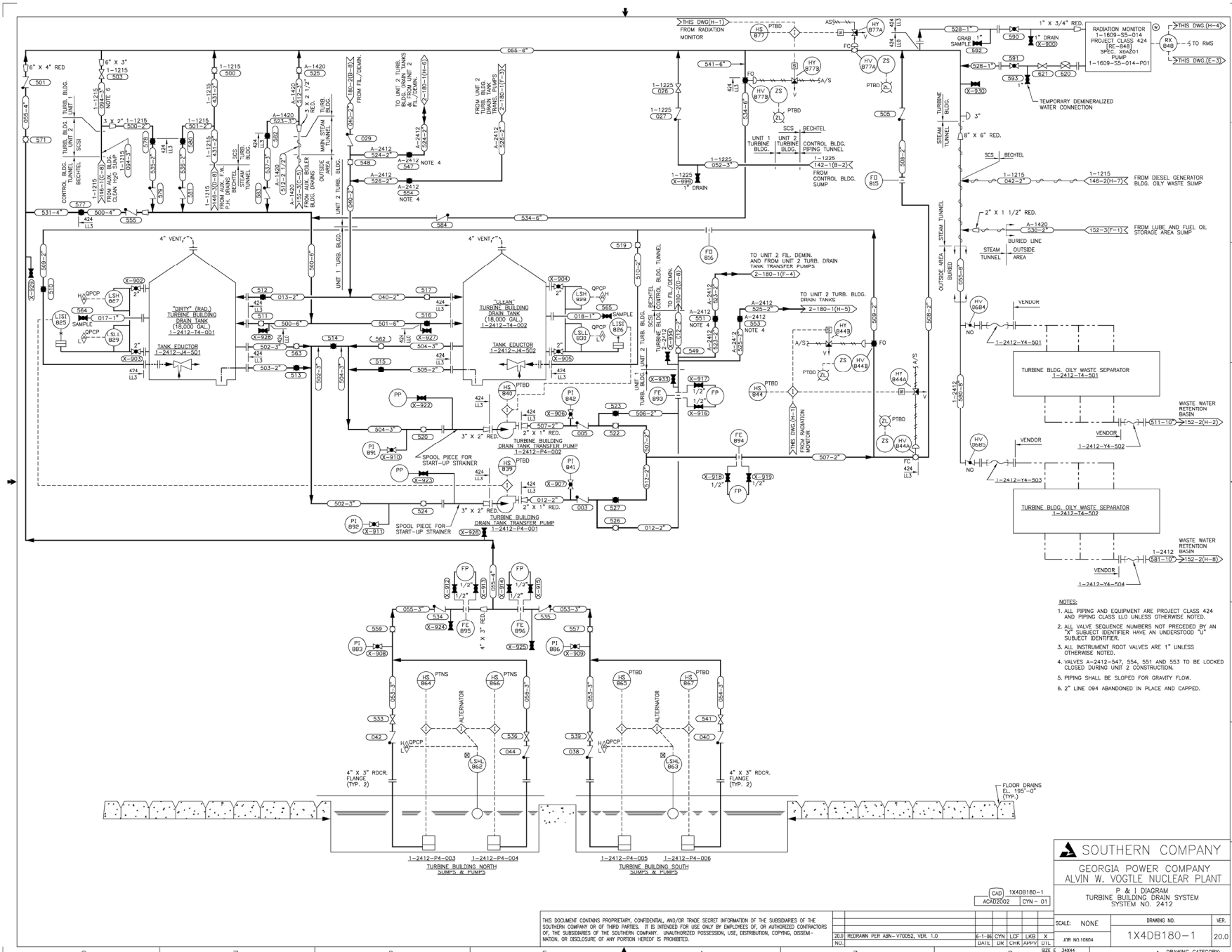
 SOUTHERN COMPANY

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
STEAM GENERATOR BLOWDOWN SYSTEM
SYSTEM NO. 1407

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SCALE: NONF	DRAWING NO.	VER.
JOB NO.10604	1X4DB179-2	44.C



SOUTHERN COMPANY
 GEORGIA POWER COMPANY
 ALVIN W. VOGTLE NUCLEAR PLANT
 P & I DIAGRAM
 TURBINE BUILDING DRAIN SYSTEM
 SYSTEM NO. 2412

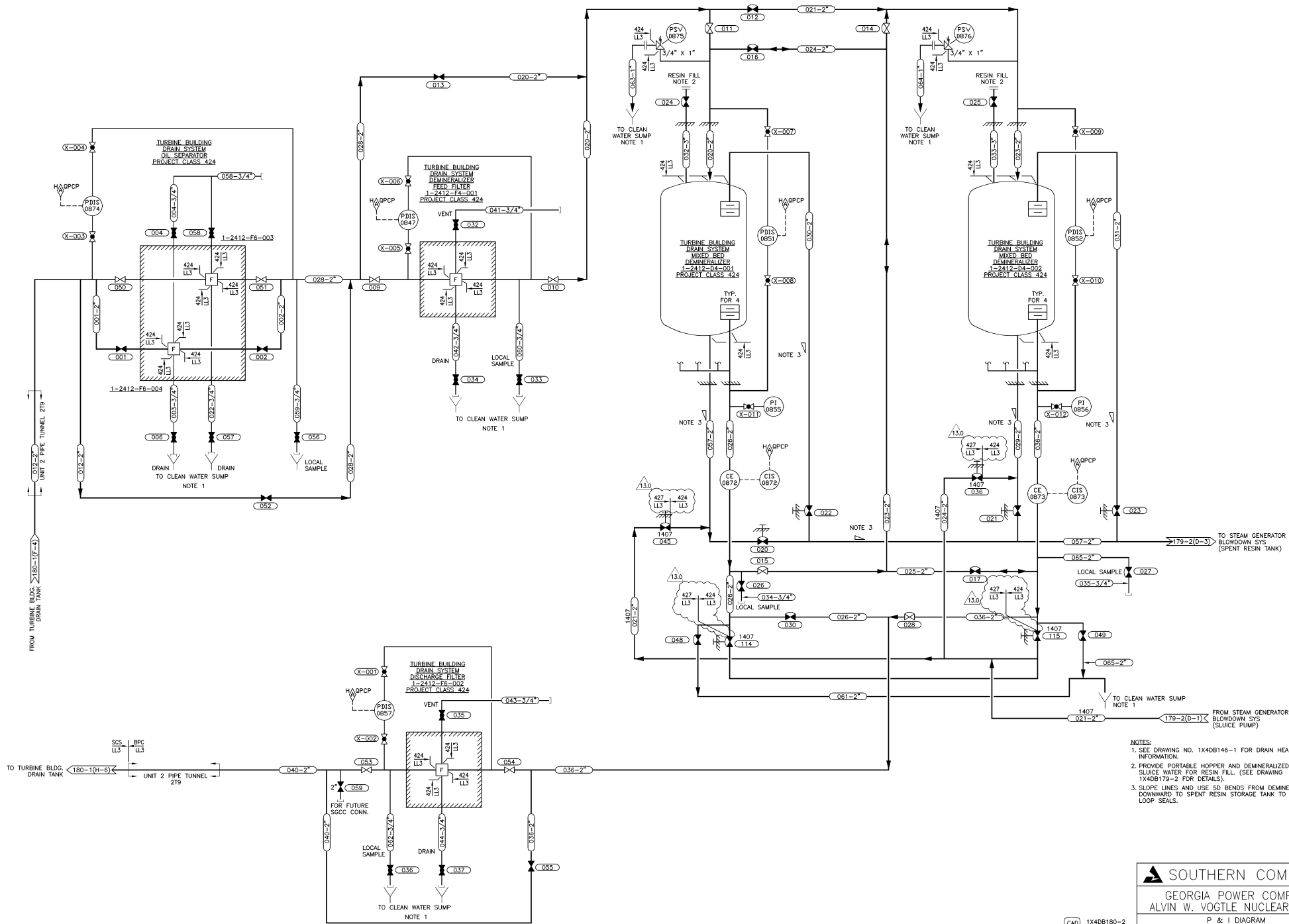
CAD 1X4DB180-1
 ACAD2002 CYN - 01

SCALE: NONE	DRAWING NO.	VER.
1X4DB180-1	20.0	

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20.0 REDRAWN PER ABN-VI0052, VER. 1.0	8-1-06 CYN	LOF	LIB	X
DATE	LN	CHK	APPV	UTL

1 DRAWING CATEGORY: CRITICAL



SOUTHERN COMPANY
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE BUILDING DRAIN SYSTEM
SYSTEM NO. 2412

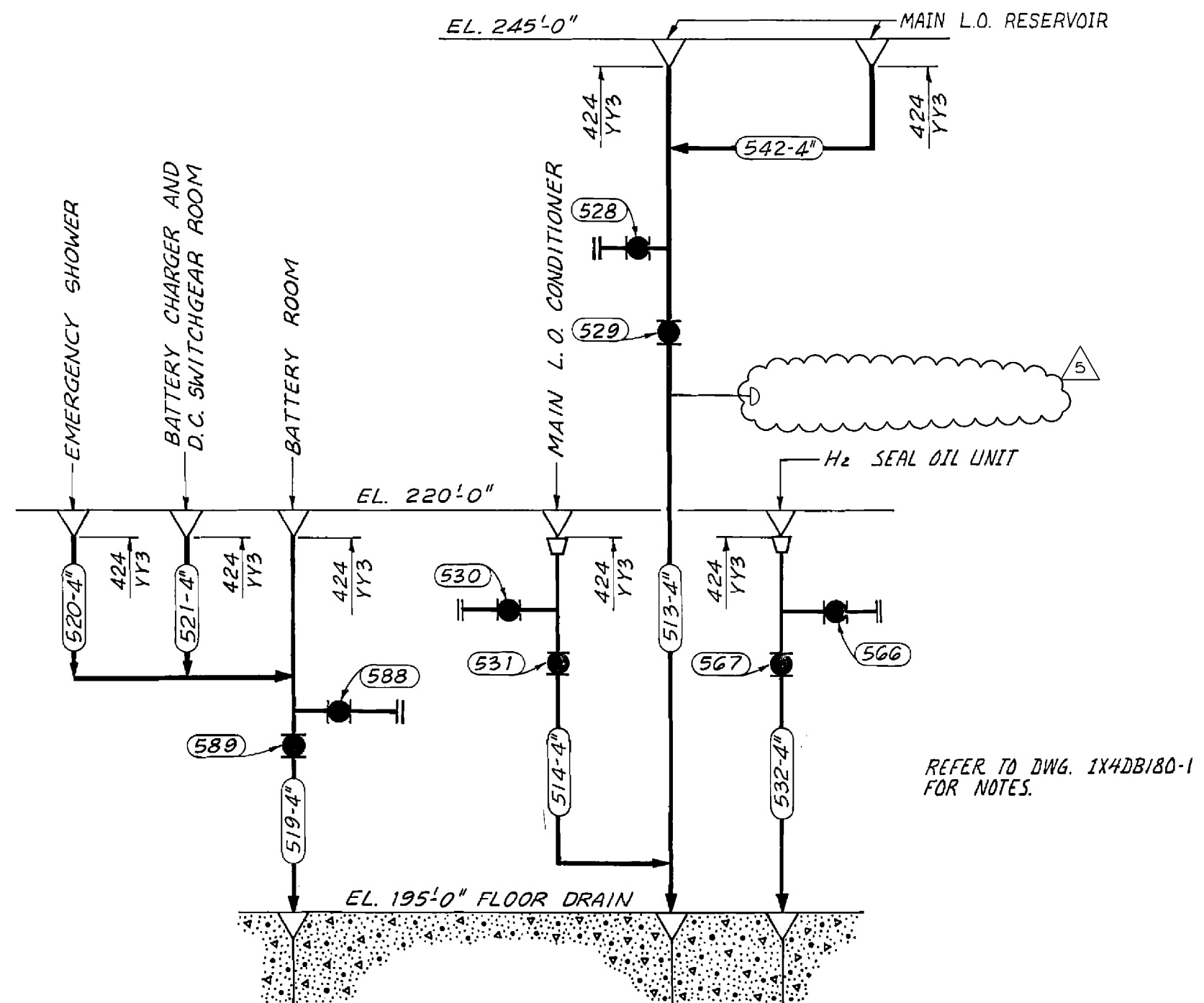
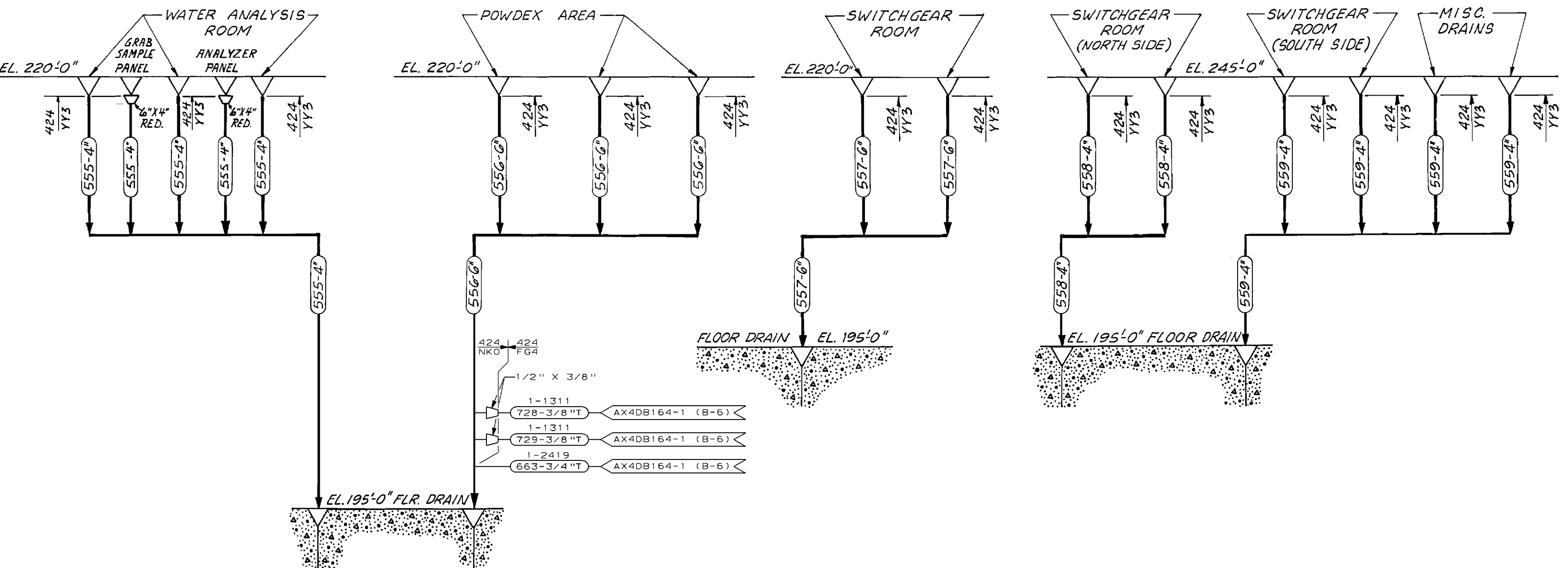
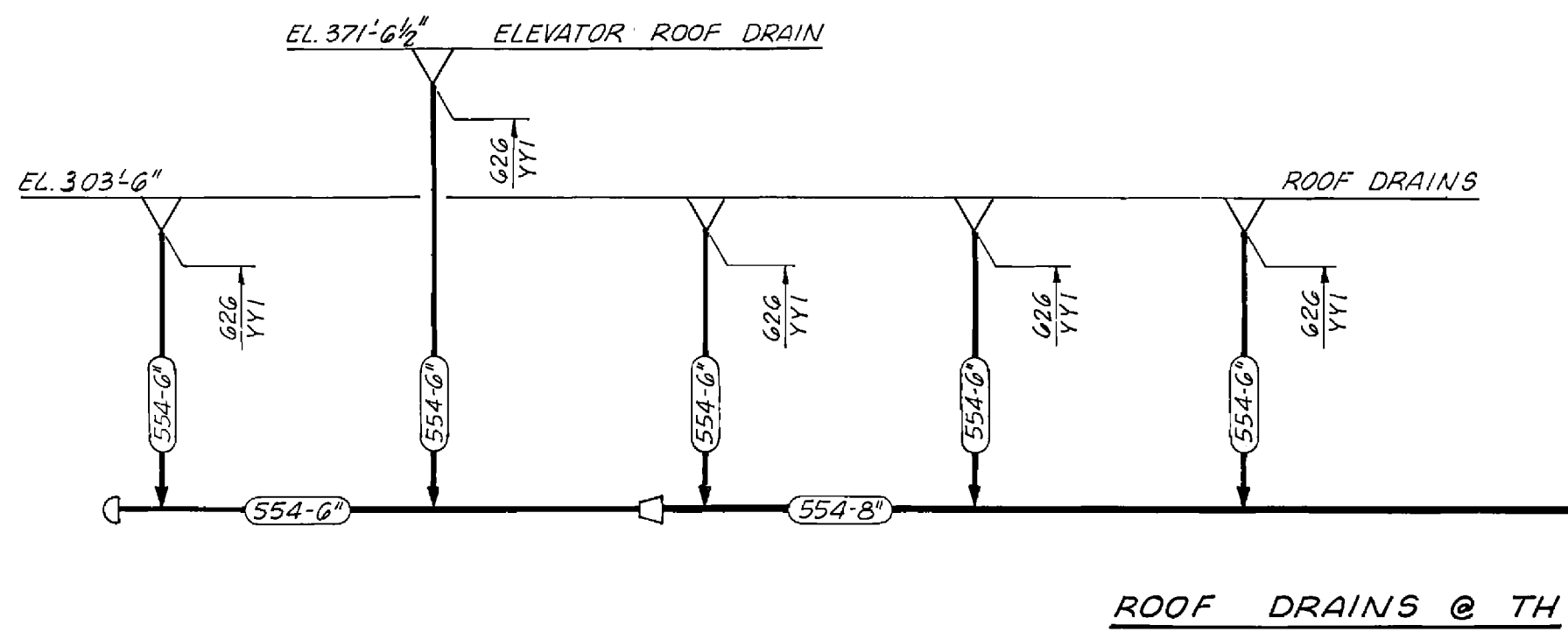
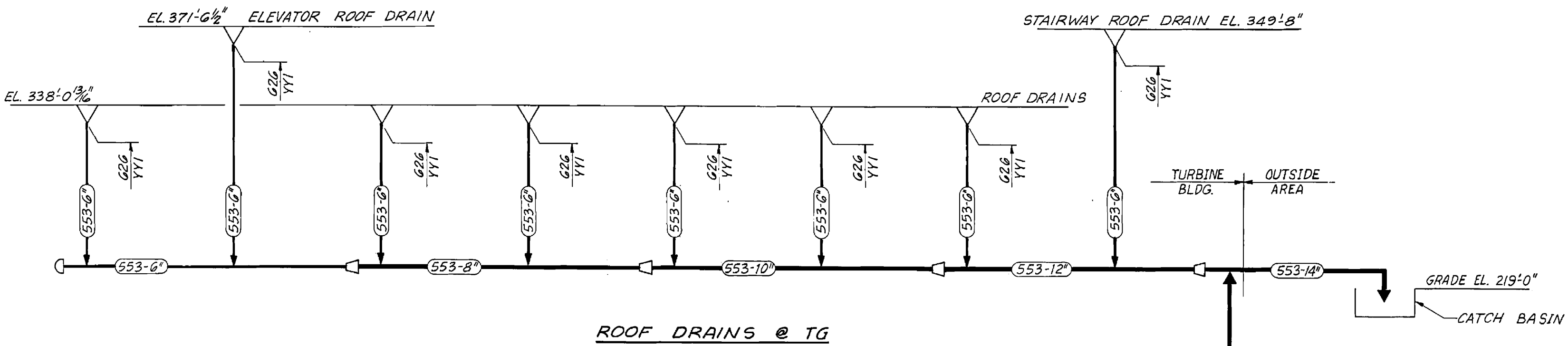
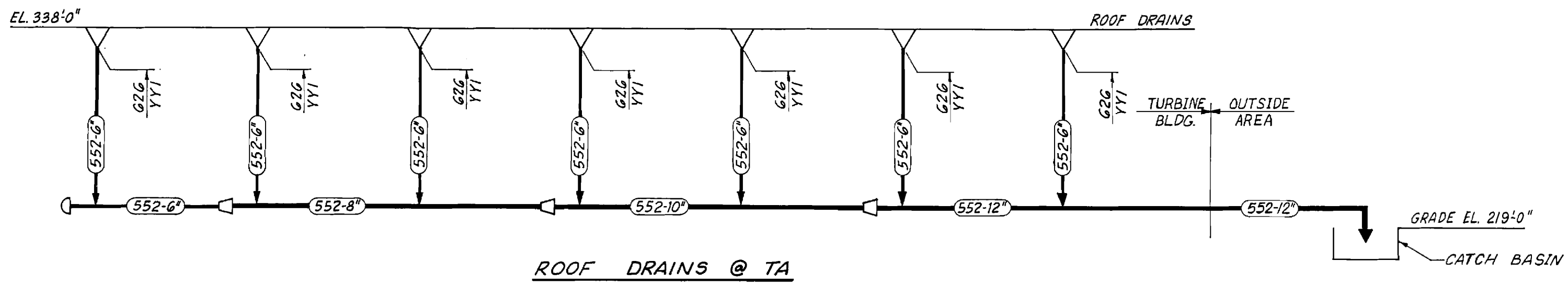
CAD 1X4DB180-2
ACAD2002 DCP-01

SCALE: NONE DRAWING NO. VER.
1X4DB180-2 13.0

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13.0 REVISED PER ABN-V00309, VER. 1.0 08-12-06 DCP HAD ASK X
DATE DR CHK APPV DTG
SCE E 34X44

1 DRAWING CATEGORY: CRITICAL



SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE BUILDING DRAIN SYSTEM
(SUSPENDED & ROOF DRAINS)
SYSTEM NO. 2412 SHEET 3 OF 4

SCALE: NONE	DRAWING NO.	REV.
JOB NO. 10604	1X4DB180-3	5

NO.	REVISIONS	DATE	DR	CHK	APPV	DTL
1	INCORP. PER ABN-39557	12-23-03	KMH	CMM	DEW	

8

7

6

5

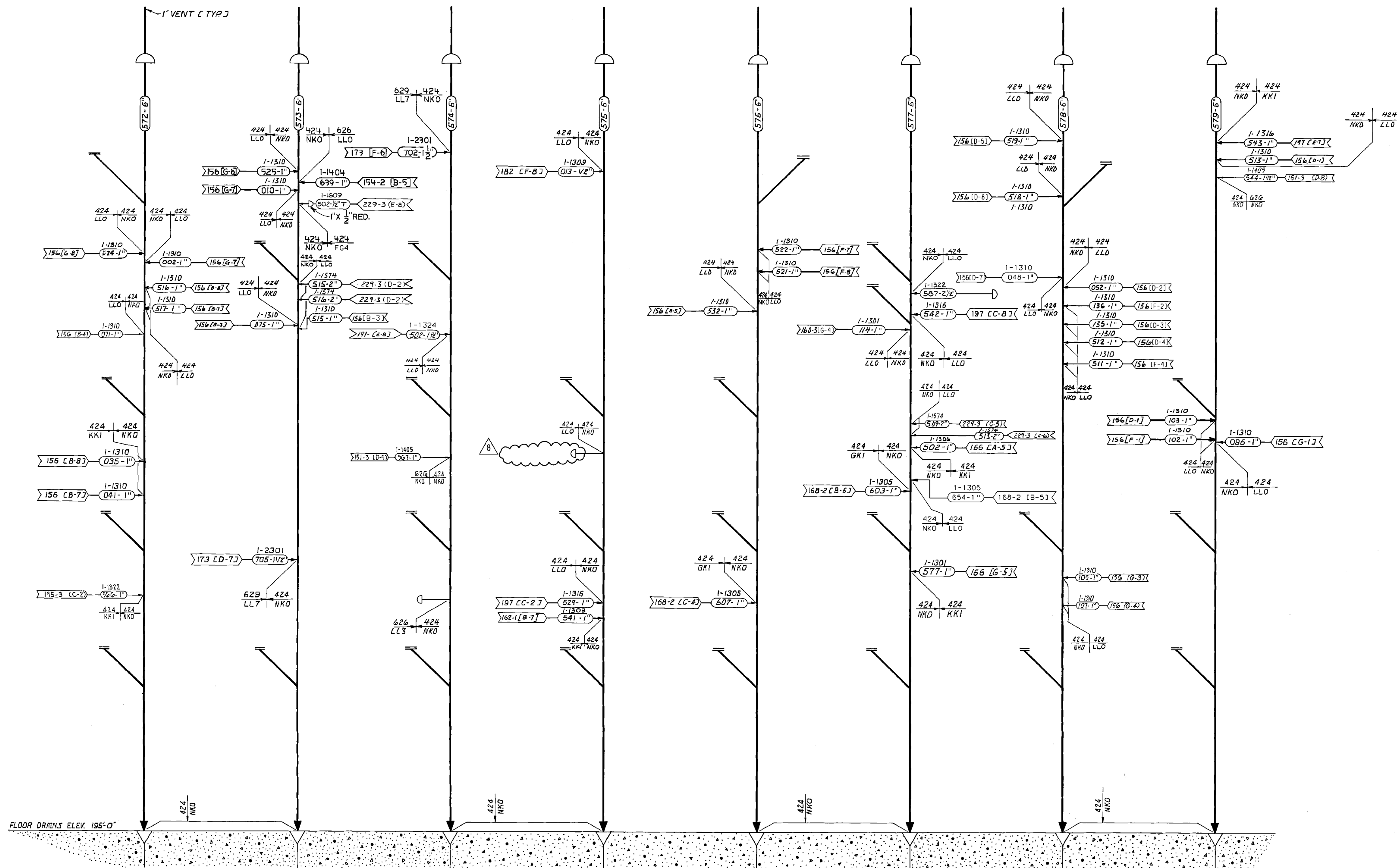
4

3

2

1

SIZE E 34x44



REFER TO DWG 1X4DB180-1
FOR NOTES.

SEE DWG 1X4DB180-4 REV. 5

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
TURBINE BUILDING DRAIN SYSTEM
SYSTEM NO. 2412 SHEET 4 OF 4

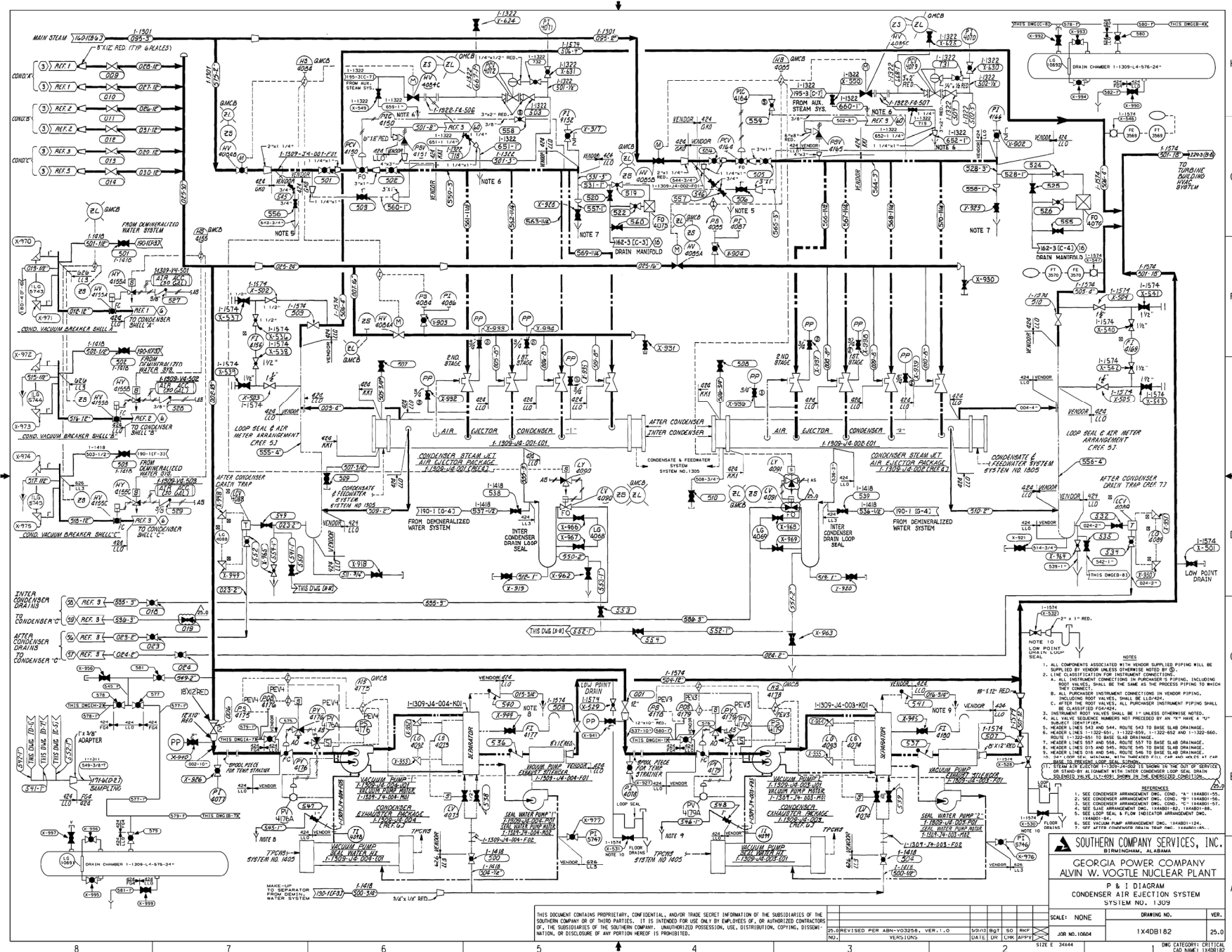
SCALE: NONE	DRAWING NO.	REV.
JOB NO. 10604	1X4DB180-4	8

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INCORP. PER ABN 39558	12-26-03	KMH	CMM	DEW	X
NO.	DATE	DR	CHK	APPV	DTL

SIZE E 34x44

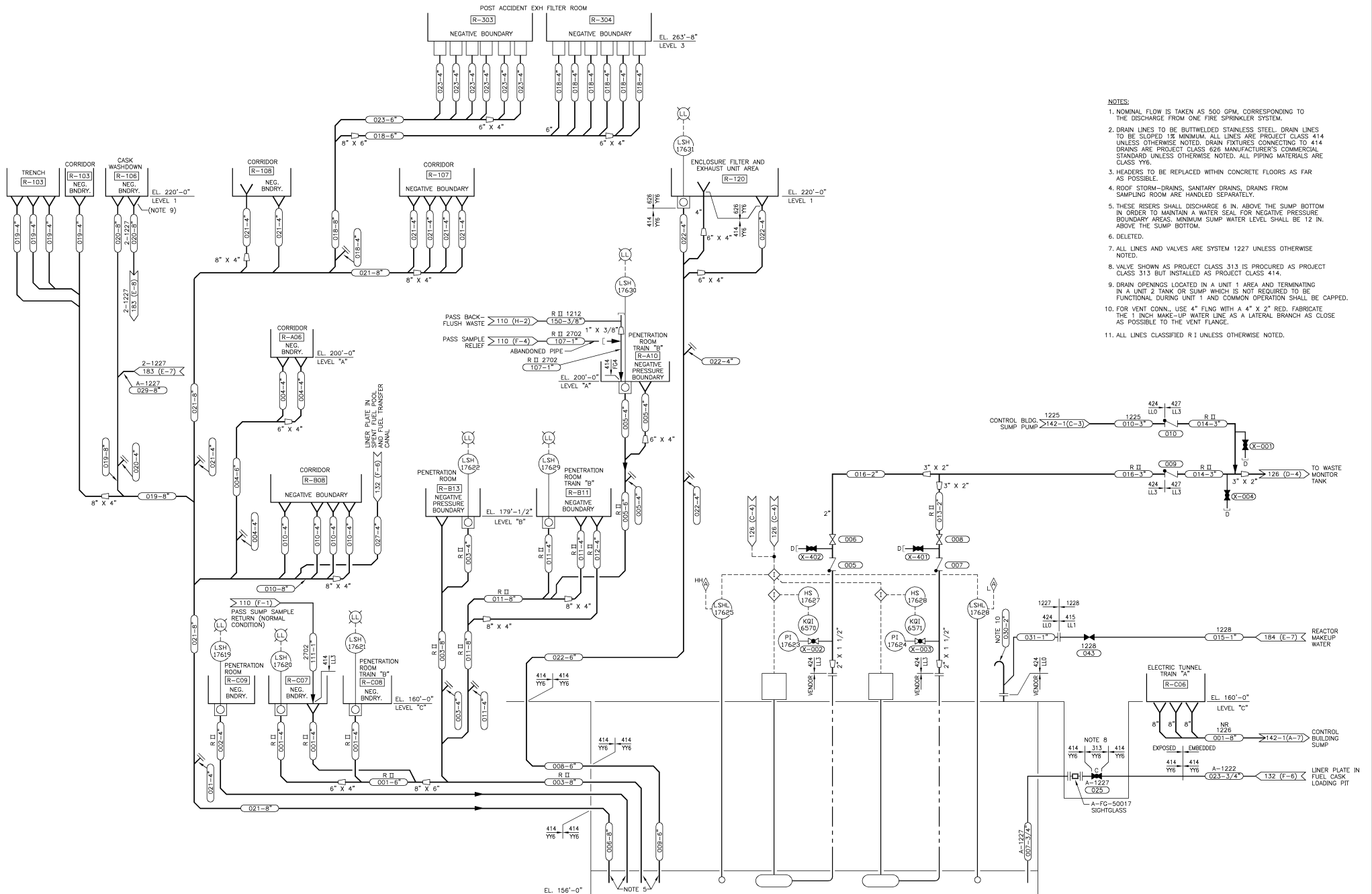
CAD NAME
1X4DB180-4



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SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
P & I DIAGRAM
CONDENSER AIR EJECTION SYSTEM
SYSTEM NO. 1509

SCALE: NONE	DRAWING NO. 1X40B182	VER. 25.0
DATE: 10/10/84	DATE: 10/10/84	DATE: 10/10/84
BY: J. H. B. / J. H. B.	BY: J. H. B. / J. H. B.	BY: J. H. B. / J. H. B.
CHK: J. H. B. / J. H. B.	CHK: J. H. B. / J. H. B.	CHK: J. H. B. / J. H. B.
APP: J. H. B. / J. H. B.	APP: J. H. B. / J. H. B.	APP: J. H. B. / J. H. B.



- NOTES:
1. NOMINAL FLOW IS TAKEN AS 500 GPM, CORRESPONDING TO THE DISCHARGE FROM ONE FIRE SPRINKLER SYSTEM.
 2. DRAIN LINES TO BE BUTTWELDED STAINLESS STEEL. DRAIN LINES TO BE SLOPED 1/8" MINIMUM. ALL LINES ARE PROJECT CLASS 414 UNLESS OTHERWISE NOTED. DRAIN FIXTURES CONNECTING TO 414 DRAINS ARE PROJECT CLASS 626 MANUFACTURER'S COMMERCIAL STANDARD UNLESS OTHERWISE NOTED. ALL PIPING MATERIALS ARE CLASS Y76.
 3. HEADERS TO BE REPLACED WITHIN CONCRETE FLOORS AS FAR AS POSSIBLE.
 4. ROOF STORM-DRAINS, SANITARY DRAINS, DRAINS FROM SAMPLING ROOM ARE HANDLED SEPARATELY.
 5. THESE RISERS SHALL DISCHARGE 6 IN. ABOVE THE SUMP BOTTOM IN ORDER TO MAINTAIN A WATER SEAL FOR NEGATIVE PRESSURE BOUNDARY AREAS. MINIMUM SUMP WATER LEVEL SHALL BE 12 IN. ABOVE THE SUMP BOTTOM.
 6. DELETED.
 7. ALL LINES AND VALVES ARE SYSTEM 1227 UNLESS OTHERWISE NOTED.
 8. VALVE SHOWN AS PROJECT CLASS 313 IS PROCURED AS PROJECT CLASS 313 BUT INSTALLED AS PROJECT CLASS 414.
 9. DRAIN OPENINGS LOCATED IN A UNIT 1 AREA AND TERMINATING IN A UNIT 2 TANK OR SUMP WHICH IS NOT REQUIRED TO BE FUNCTIONAL DURING UNIT 1 AND COMMON OPERATION SHALL BE CAPPED.
 10. FOR VENT CONN. USE 4" FLNG WITH A 4" X 2" RED. FABRICATE THE 1 INCH MAKE-UP WATER LINE AS A LATERAL BRANCH AS CLOSE AS POSSIBLE TO THE VENT FLANGE.
 11. ALL LINES CLASSIFIED R 1 UNLESS OTHERWISE NOTED.

FUEL HANDLING BUILDING
DRAIN SUMP PUMPS
PROJECT CLASS 414
1-1227-P4-001_002



SOUTHERN COMPANY

GEORGIA POWER COMPANY

ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM

FUEL HANDLING BUILDING &
ELECTRICAL CHASE TUNNEL DRAINS

SYSTEM NO. 1226 & 1227

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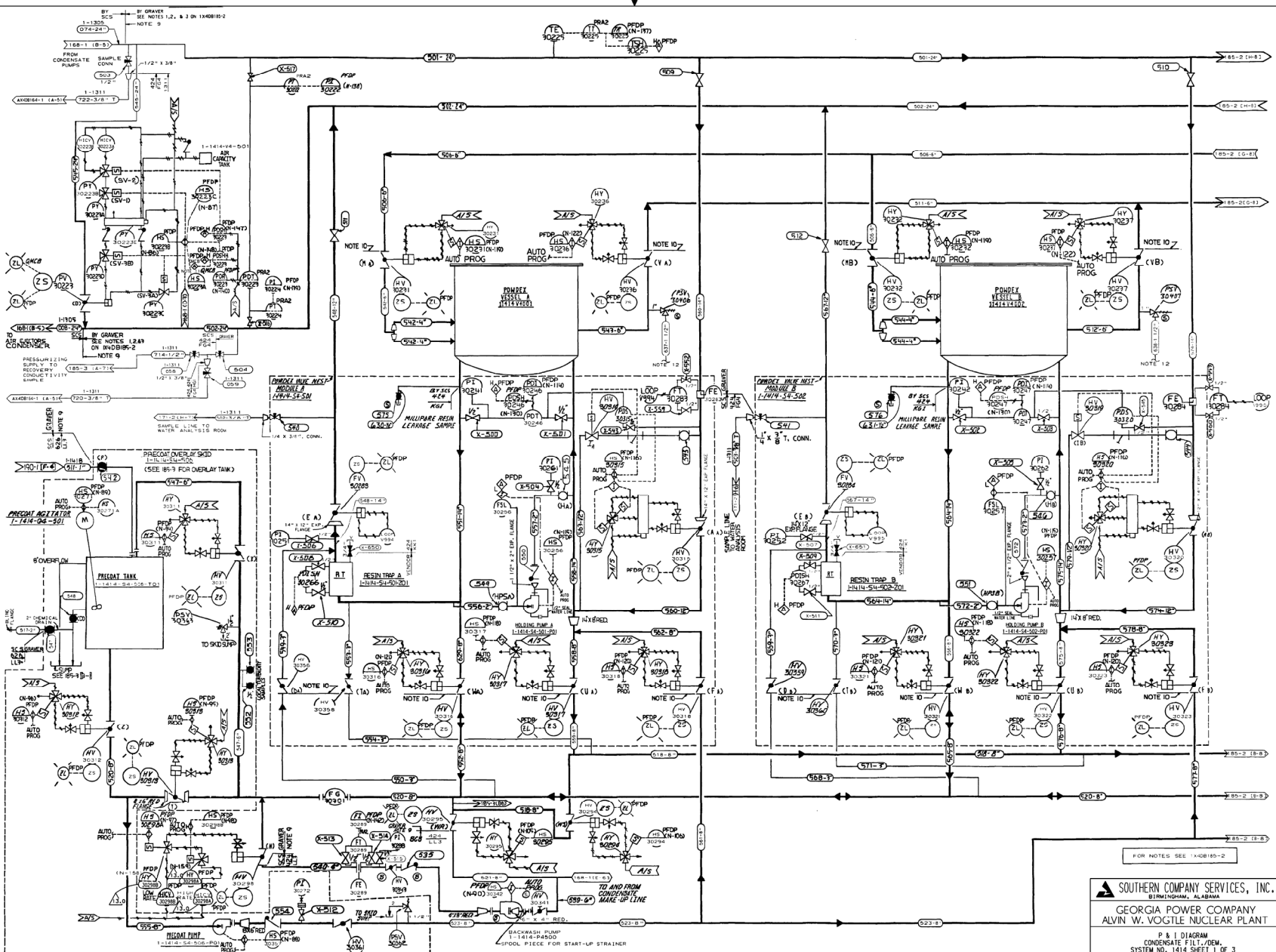
CAD 1X4DB183
ACAD2002 CYN - 01

15.0 REDRAWN PER ABN-V70013, VER. 1.0.

SCALE: NONE DRAWING NO. VER.

1X4DB183 15.0

DRAWING CATEGORY: CRITICAL

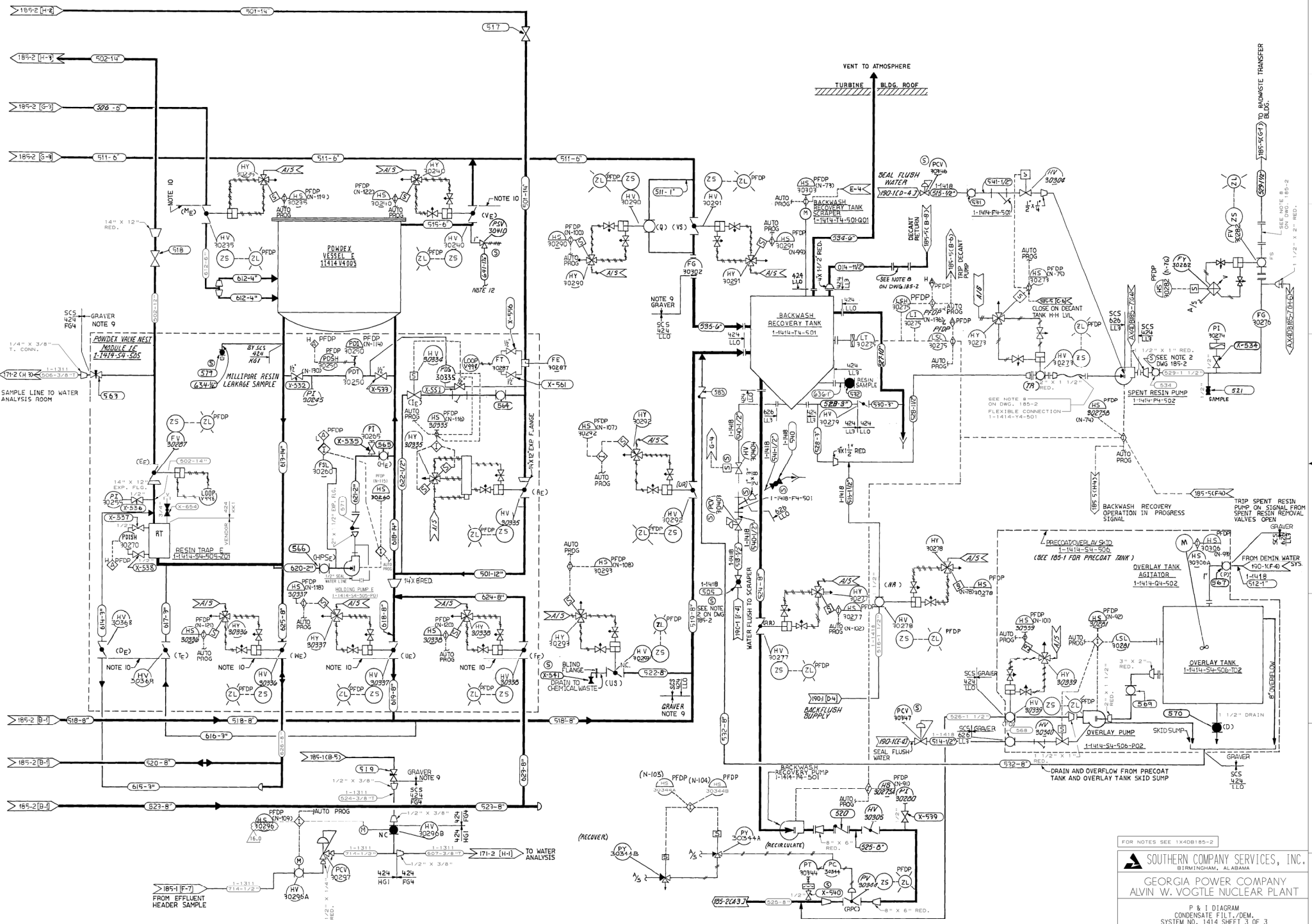


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NO.	VERSIONS	DATE	CHK	APPV	JOB NO.	SCALE	DRAWING NO.	VER.
1	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
2	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
3	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
4	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
5	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
6	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
7	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
8	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0
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10	1	10/1/85	1	1	1X40B105-1	NONE	1X40B105-1	13.0

SOUTHERN COMPANY SERVICES, INC.
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
P & ID DIAGRAM
CONDENSATE FILTRATION
SYSTEM NO. 1414 SHEET 1 OF 3

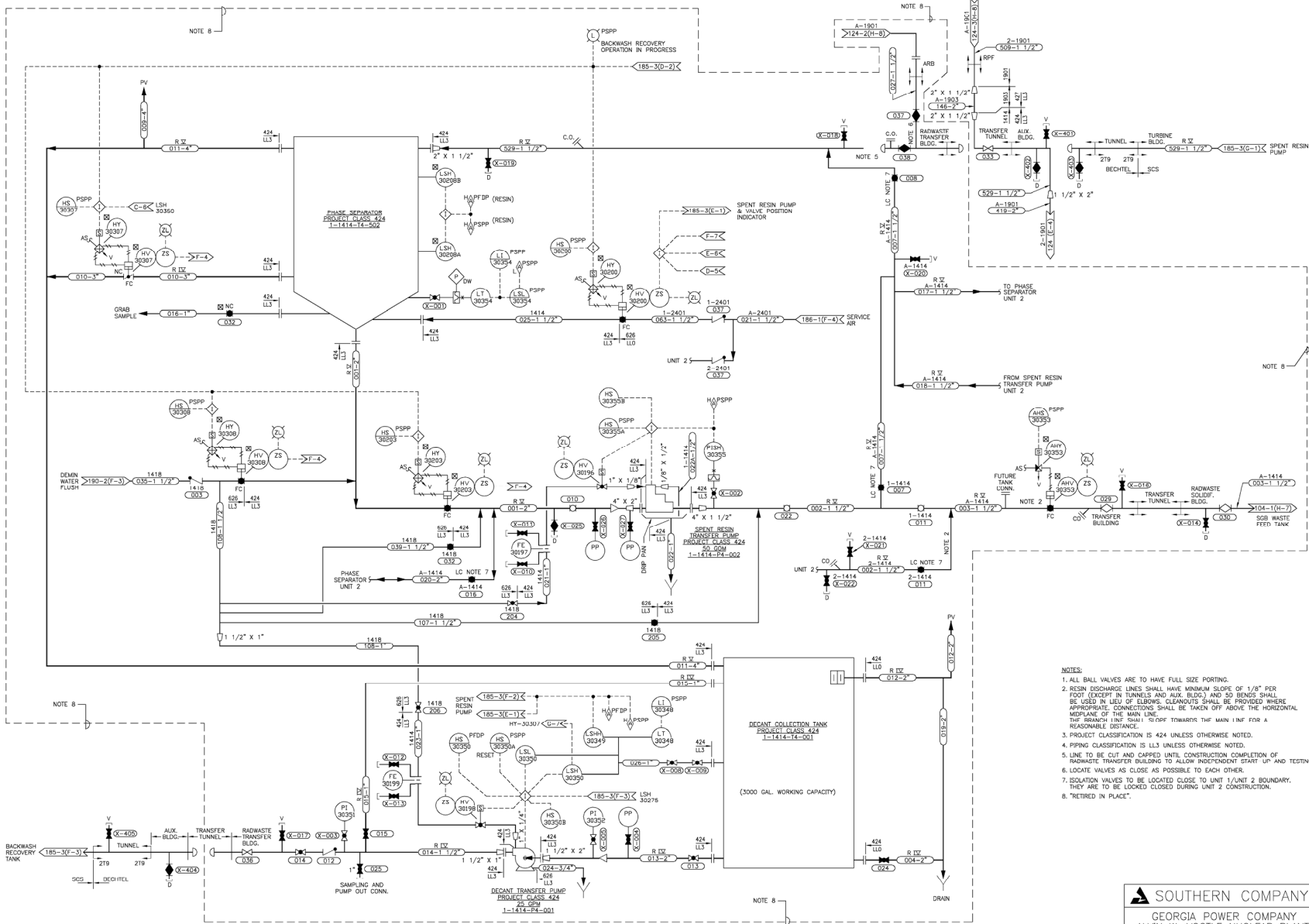
NO.	VERSIONS	DATE	CHK	APPV
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16	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
15	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
14	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
13	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
12	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
11	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
10	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
9	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
8	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
7	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
6	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
5	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
4	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
3	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
2	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI
1	REVISED PER ABB-V01691, VER. 1.0	7-29-88	Bgt	MLH	PMI

SCALE: NONE	DRAWING NO. 1X4DB185-3	VER. 16.0
JOB NO. 10604		
SIZE E 30x44		
DRAWING CATEGORY CRITICAL		



- NOTES:
1. ALL BALL VALVES ARE TO HAVE FULL SIZE PORTING.
 2. RESIN DISCHARGE LINES SHALL HAVE MINIMUM SLOPE OF 1/8" PER FOOT (EXCEPT IN TUNNELS AND AUX. BLDG.) AND 50 BENDS SHALL BE USED IN LIEU OF ELBOWS. CLEAROUTS SHALL BE PROVIDED WHERE APPROPRIATE. CONNECTIONS SHALL BE TAKEN OFF ABOVE THE HORIZONTAL MIDPLANE OF THE MAIN LINE. THE BRANCH LINE SHALL BE 1/2" OFF TOWARDS THE MAIN LINE FOR A REASONABLE DISTANCE.
 3. PROJECT CLASSIFICATION IS LL3 UNLESS OTHERWISE NOTED.
 4. PIPING CLASSIFICATION IS LL3 UNLESS OTHERWISE NOTED.
 5. LINE TO BE CUT AND CAPPED UNTIL CONSTRUCTION COMPLETION OF RADWASTE TRANSFER BUILDING TO ALLOW INDEPENDENT START UP AND TESTING.
 6. LOCATE VALVES AS CLOSE AS POSSIBLE TO EACH OTHER.
 7. ISOLATION VALVES TO BE LOCATED CLOSE TO UNIT 1/UNIT 2 BOUNDARY. THEY ARE TO BE LOCKED CLOSED DURING UNIT 2 CONSTRUCTION.
 8. "RETIRED IN PLACE".

SOUTHERN COMPANY
 GEORGIA POWER COMPANY
 ALVIN W. VOGTE NUCLEAR PLANT
 P & I DIAGRAM
 CONDENSATE FILTER DEMINERALIZER
 BACKWASH SEPARATION SYSTEM NO. 1414

CAD 1X4DB185-5
 ACAD2004 CYN - 01

SCALE: NONE
 DRAWING NO. 1X4DB185-5
 VER. 19.0

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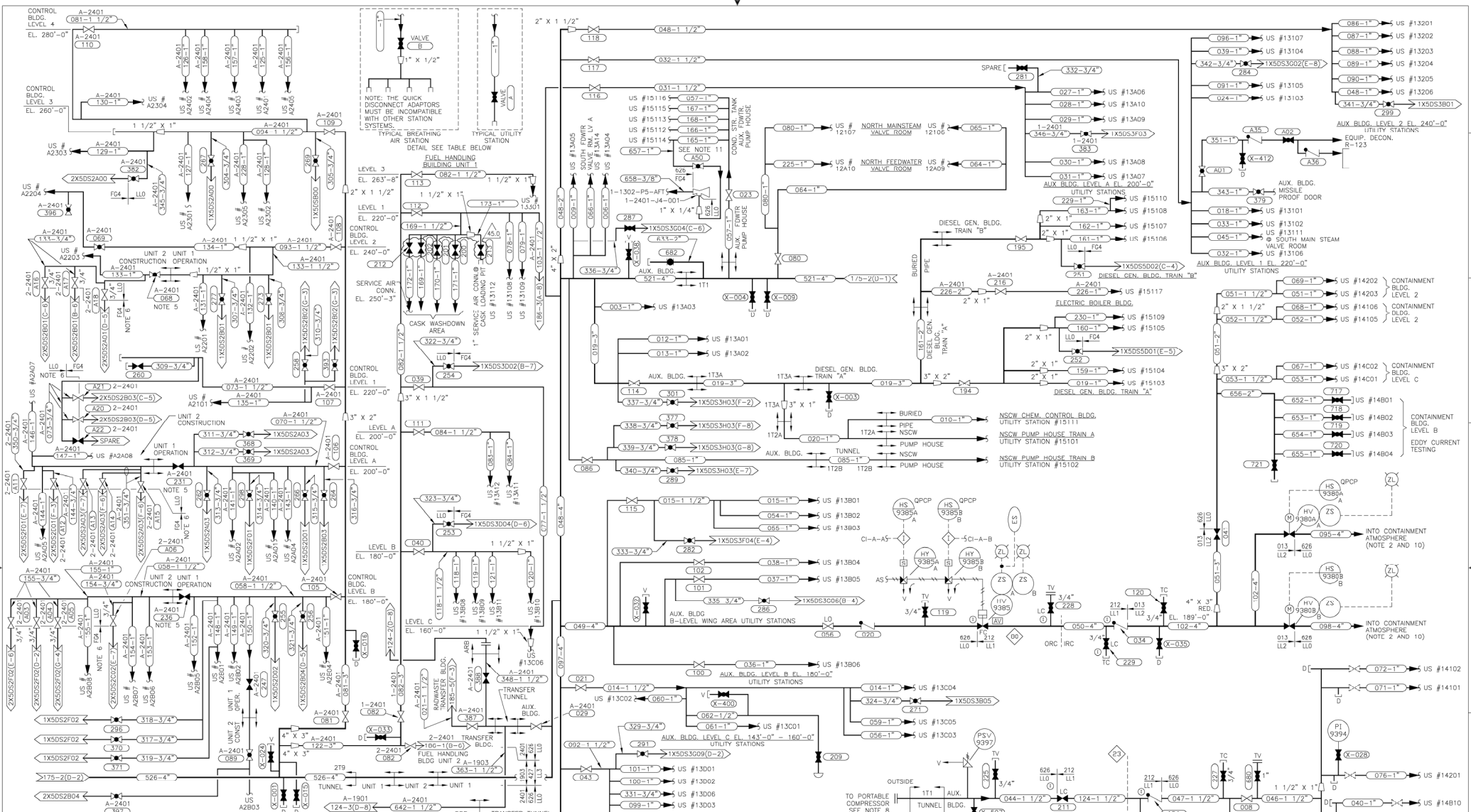
REVISIONS
 NO. 18.0 REDRAWN PER ASN-V0126, VER. 1.0
 DATE 1/11/06 CYN LCF LWW X
 DATE 1/11/06 CYN LCF LWW X
 DATE 1/11/06 CYN LCF LWW X

SIZE E 340044
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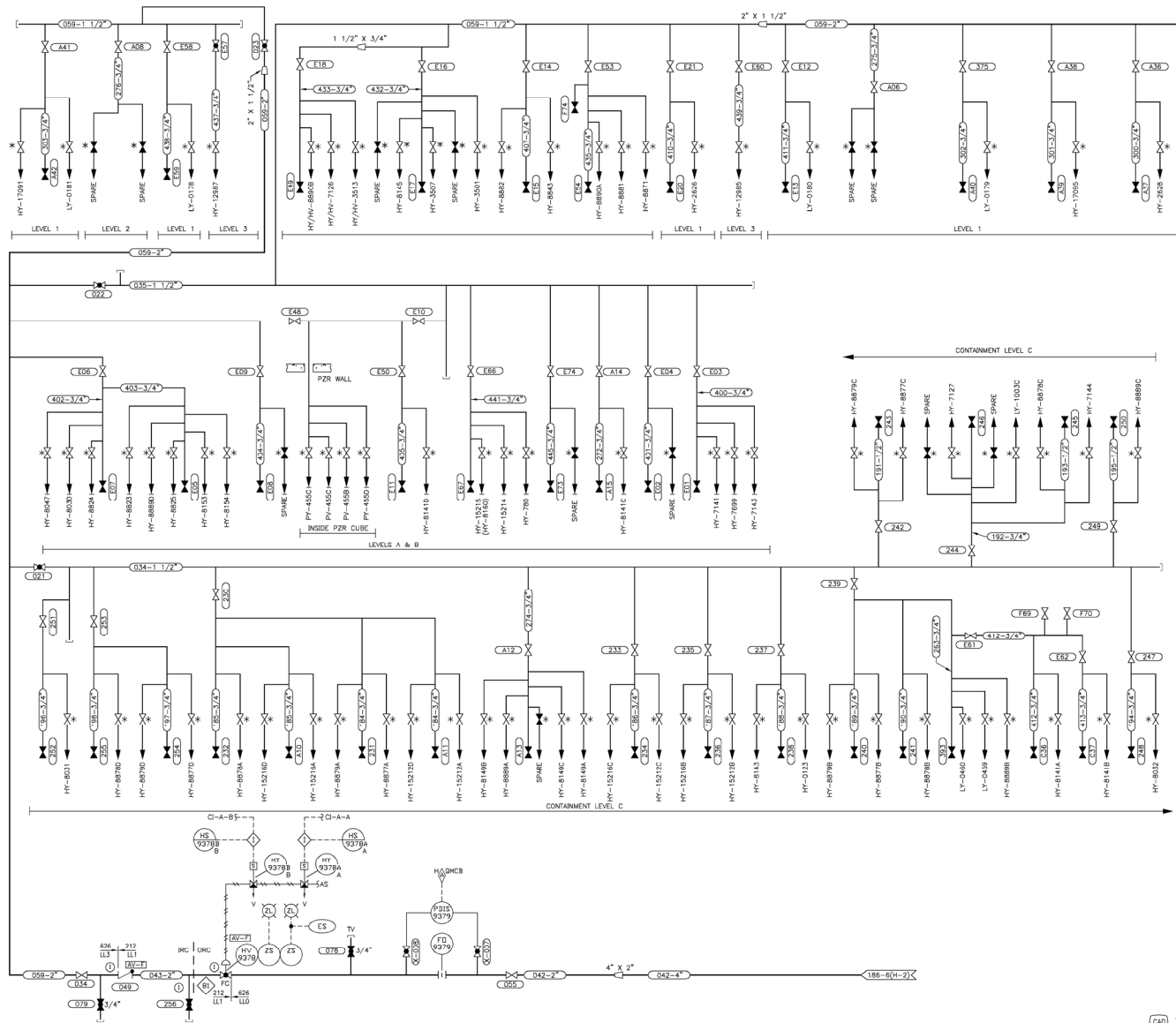


SOUTHERN COMPANY SERVICES, INC.
 611 FIRST HIGHWAY, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
P & I DIAGRAM
INSTRUMENT AIR SYSTEM
CONTROL BUILDING LEVELS A & I
SYSTEM 2420

[illegible]



CONTROL BUILDING									
LEVEL B		LEVEL A		LEVEL 1		LEVEL 2		LEVEL 4	
STATION	VALVE	STATION	VALVE	STATION	VALVE	STATION	VALVE	STATION	VALVE
A2801	087	A2401	075	A2101	050	A2201	066	A2301	060
A2802	088	A2402	076	A2102	051	A2202	067	A2302	061
A2803	089	A2403	077	A2103	052	A2203	068	A2303	062
A2804	090	A2404	078	A2104	053	A2204	069	A2304	063
A2805	091	A2405	079	A2105	054	A2205	070	A2305	064
A2806	092	A2406	080	A2106	055	A2206	071	A2306	065
A2807	093	A2407	081	A2107	056	A2207	072	A2307	066
A2808	094	A2408	082	A2108	057	A2208	073	A2308	067
A2809	095	A2409	083	A2109	058	A2209	074	A2309	068
A2810	096	A2410	084	A2110	059	A2210	075	A2310	069
A2811	097	A2411	085	A2111	060	A2211	076	A2311	070
A2812	098	A2412	086	A2112	061	A2212	077	A2312	071
A2813	099	A2413	087	A2113	062	A2213	078	A2313	072
A2814	100	A2414	088	A2114	063	A2214	079	A2314	073
A2815	101	A2415	089	A2115	064	A2215	080	A2315	074
A2816	102	A2416	090	A2116	065	A2216	081	A2316	075
A2817	103	A2417	091	A2117	066	A2217	082	A2317	076
A2818	104	A2418	092	A2118	067	A2218	083	A2318	077
A2819	105	A2419	093	A2119	068	A2219	084	A2319	078
A2820	106	A2420	094	A2120	069	A2220	085	A2320	079
A2821	107	A2421	095	A2121	070	A2221	086	A2321	080
A2822	108	A2422	096	A2122	071	A2222	087	A2322	081
A2823	109	A2423	097	A2123	072	A2223	088	A2323	082
A2824	110	A2424	098	A2124	073	A2224	089	A2324	083
A2825	111	A2425	099	A2125	074	A2225	090	A2325	084
A2826	112	A2426	100	A2126	075	A2226	091	A2326	085
A2827	113	A2427	101	A2127	076	A2227	092	A2327	086
A2828	114	A2428	102	A2128	077	A2228	093	A2328	087
A2829	115	A2429	103	A2129	078	A2229	094	A2329	088
A2830	116	A2430	104	A2130	079	A2230	095	A2330	089
A2831	117	A2431	105	A2131	080	A2231	096	A2331	090
A2832	118	A2432	106	A2132	081	A2232	097	A2332	091
A2833	119	A2433	107	A2133	082	A2233	098	A2333	092
A2834	120	A2434	108	A2134	083	A2234	099	A2334	093
A2835	121	A2435	109	A2135	084	A2235	100	A2335	094
A2836	122	A2436	110	A2136	085	A2236	101	A2336	095
A2837	123	A2437	111	A2137	086	A2237	102	A2337	096
A2838	124	A2438	112	A2138	087	A2238	103	A2338	097
A2839	125	A2439	113	A2139	088	A2239	104	A2339	098
A2840	126	A2440	114	A2140	089	A2240	105	A2340	099
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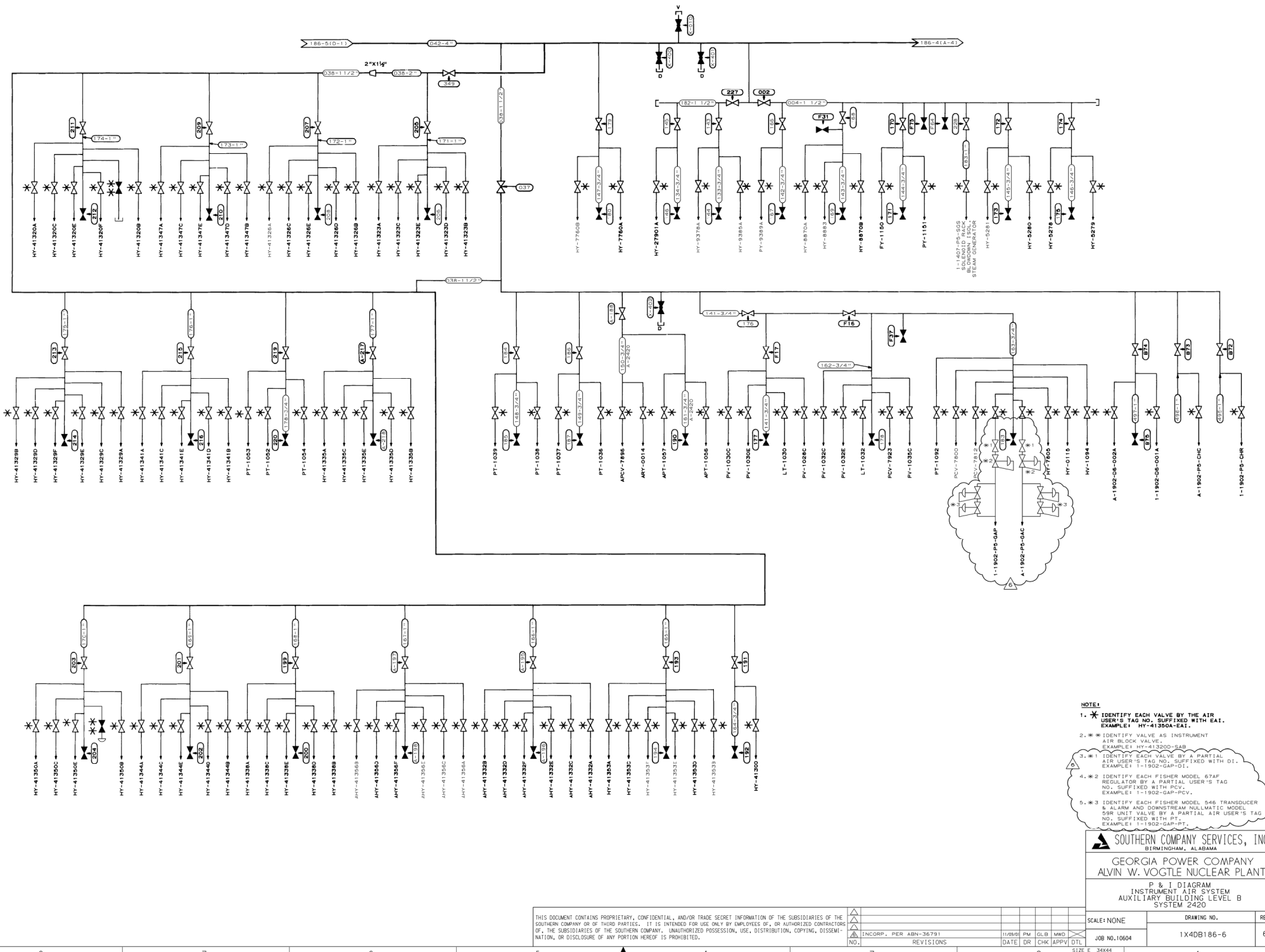


NOTES:
1. * IDENTIFY EACH VALVE BY THE AIR USER'S TAG NO. SUFFIXED WITH CAL. EXAMPLE: LY-0178-EAL

SOUTHERN COMPANY GEORGIA POWER COMPANY ALVIN W. VOGTLE NUCLEAR PLANT	
P & I DIAGRAM INSTRUMENT AIR SYSTEM CONTAINMENT BUILDING SYSTEM 2420	
SCALE: NONE JOB NO. 10604 DATE: JUN / CHK / APPV / LVL	DRAWING NO. 1X4DB186-4 VER. 14.0 1 DRAWING CATEGORY: CRITICAL

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CAD	1X4DB186-4
ACAD2004	CYN - 01
14.0	REDRAWN PER AEN-V0154, VER. 1.0
NO.	VEISGURS
DATE	LIN / CHK / APPV / LVL
SIZE	E 34004



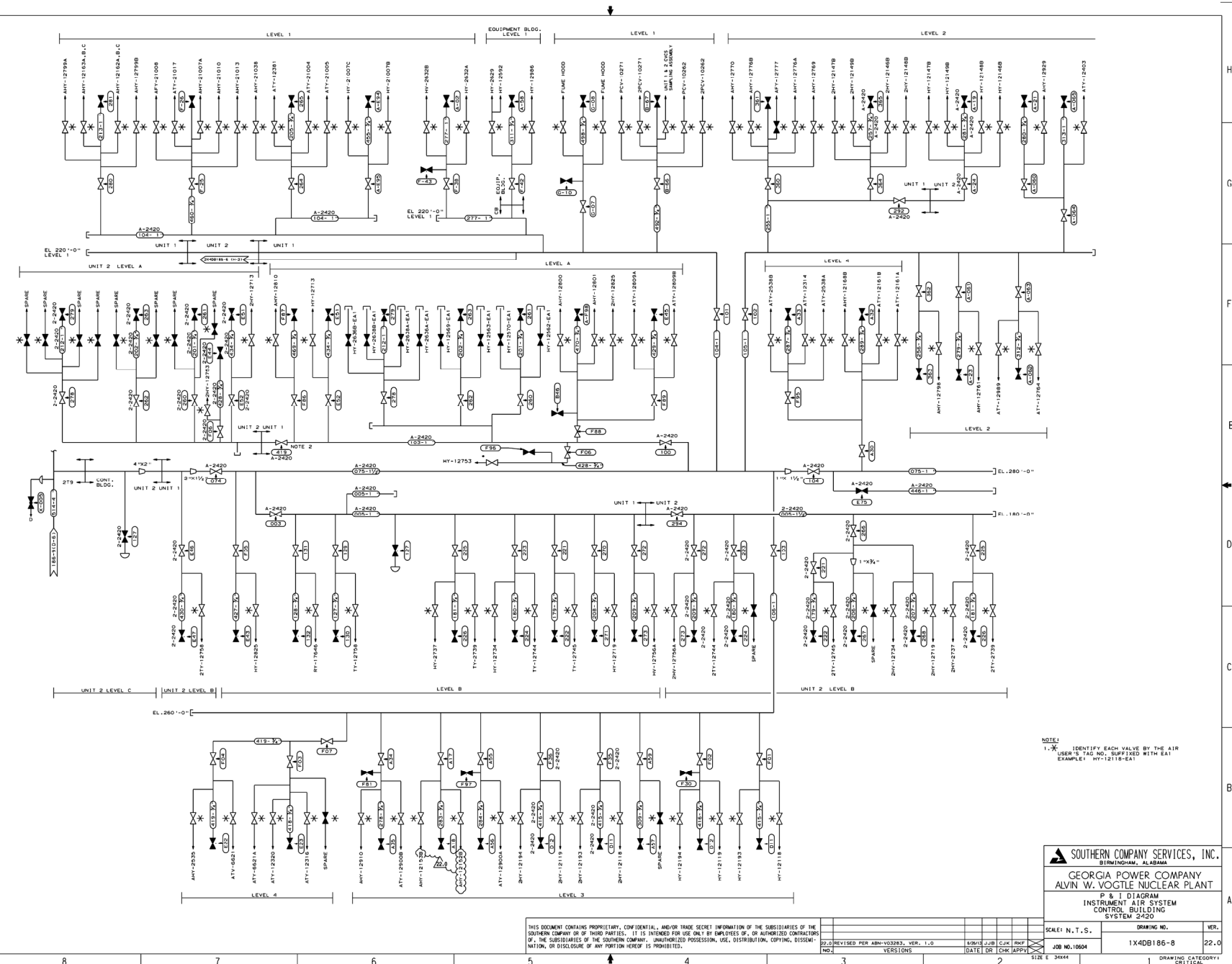
- NOTE 1.
1. * IDENTIFY EACH VALVE BY THE AIR USER'S TAG NO. SUFFIXED WITH EAI. EXAMPLE: HY-41320A-EAI.
 2. * IDENTIFY VALVE AS INSTRUMENT AIR BLOCK VALVE. EXAMPLE: HY-41320D-SAB.
 3. * 1 IDENTIFY EACH VALVE BY A PARTIAL AIR USER'S TAG NO. SUFFIXED WITH DI. EXAMPLE: 1-1902-GAP-DI.
 4. * 2 IDENTIFY EACH FISHER MODEL 67AF REGULATOR BY A PARTIAL USER'S TAG NO. SUFFIXED WITH PCV. EXAMPLE: 1-1902-GAP-PCV.
 5. * 3 IDENTIFY EACH FISHER MODEL 548 TRANSDUCER & ALARM AND DOWNSTREAM PNEUMATIC MODEL 55R UNIT VALVE BY A PARTIAL AIR USER'S TAG NO. SUFFIXED WITH PT. EXAMPLE: 1-1902-GAP-PT.

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
INSTRUMENT AIR SYSTEM
AUXILIARY BUILDING LEVEL B
SYSTEM 2420

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INCORP. PER ABN-35791				11/28/95				PM				GLB				MWD				DLT				1X40B186-6				6			
NO.				DATE				CHK				APPV				SIZE E 34x44															



NOTE:
1. * IDENTIFY EACH VALVE BY THE AIR
USER IS TAG NO. SUFFIXED WITH EA1
EXAMPLE: HY-1219-EA1

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REVISED PER	AMH-V03293, VER. 1.0	DATE	10/11/04	CHK	APPLY
VER.	1.0	DATE	10/11/04	CHK	APPLY

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTE NUCLEAR PLANT
P & I DIAGRAM
INSTRUMENT AIR SYSTEM
CONTROL BUILDING
SYSTEM 2-420

SCALE: N.T.S.	DRAWING NO.	VER.
	1X4DB186-8	22.0

DRAWING CATEGORY: CRITICAL

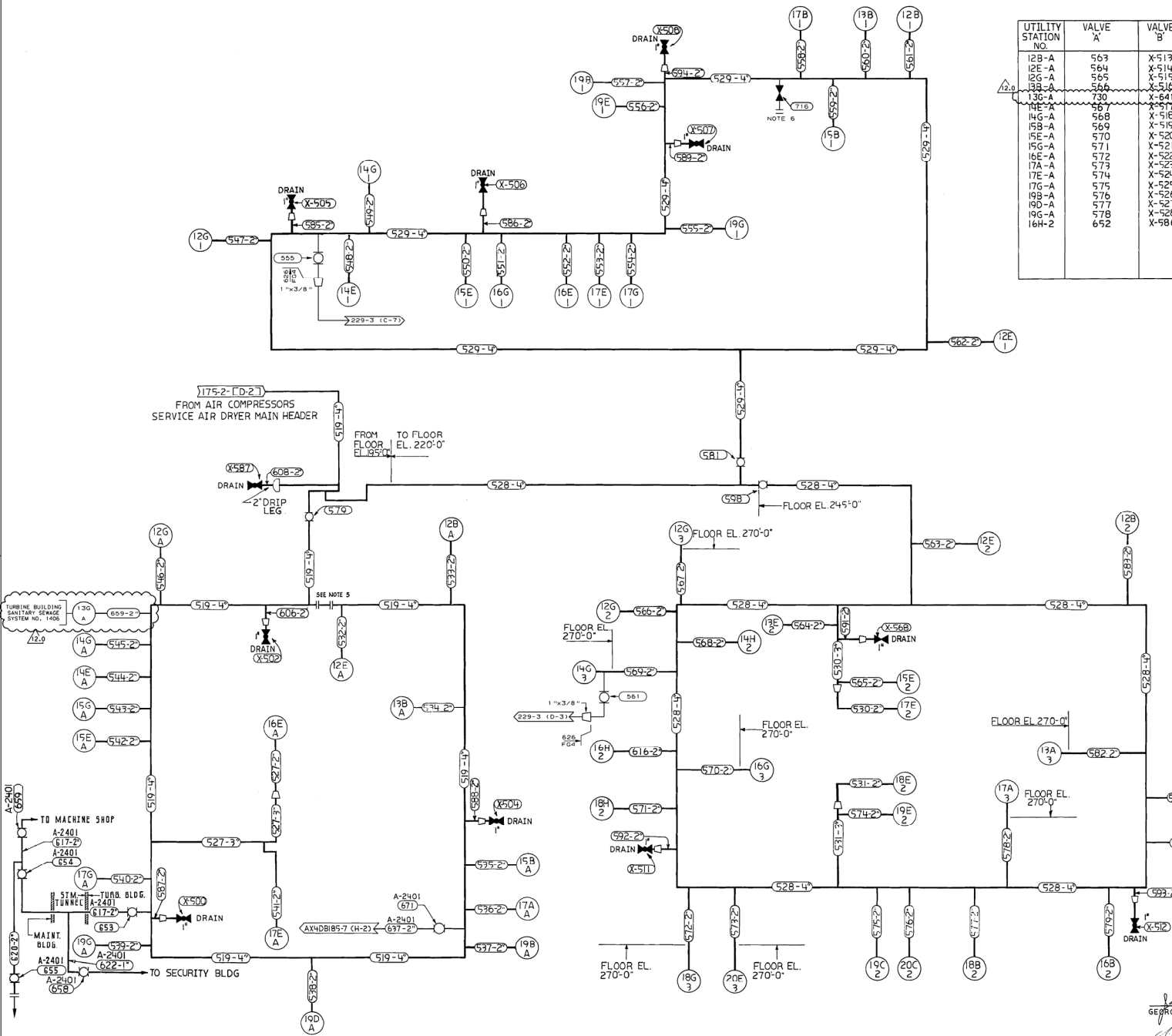
UTILITY STATION VALVE IDENTIFICATION TABLE

UTILITY STATION NO.	VALVE A	VALVE B
12B-A	563	X-513
12E-A	564	X-514
12G-A	565	X-515
13B-A	566	X-516
13E-A	567	X-517
14G-A	568	X-518
15B-A	569	X-519
15E-A	570	X-520
15G-A	571	X-521
16E-A	572	X-522
17A-A	573	X-523
17E-A	574	X-524
17G-A	575	X-525
18B-A	576	X-526
19D-A	577	X-527
19G-A	578	X-528
16H-2	652	X-586

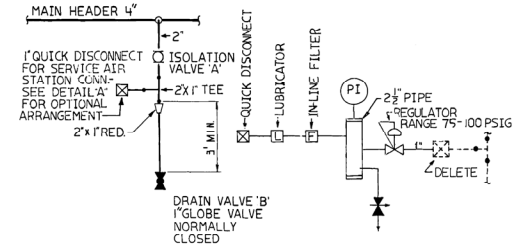
UTILITY STATION NO.	VALVE A	VALVE B
12B-1	582	X-529
12E-1	583	X-530
12G-1	584	X-531
13B-1	585	X-532
14E-1	587	X-534
14G-1	588	X-535
15B-1	589	X-536
15E-1	590	X-537
16G-1	591	X-538
16E-1	592	X-539
17B-1	593	X-540
17E-1	594	X-541
17G-1	595	X-542
19B-1	596	X-543
19E-1	597	X-544
19G-1		

UTILITY STATION NO.	VALVE A	VALVE B
12B-2	599	X-545
12E-2	600	X-546
12G-2	601	X-547
13E-2	602	X-548
14B-2	603	X-549
14H-2	604	X-550
15E-2	605	X-551
16B-2	606	X-552
17E-2	607	X-553
18B-2	608	X-554
18E-2	609	X-555
18H-2	610	X-556
19C-2	611	X-557
19E-2	612	X-558
20C-2	613	X-559
12G-3	614	
13A-3	615	
14G-3	617	
15A-3	618	
16C-3	619	
17A-3	620	
18G-3	621	
20E-3	621	

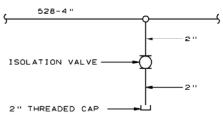
NOTE #



TYPICAL UTILITY STATION (EXCEPT STATION NO. 16G-3)



UTILITY STATION NO. 16G-3



DETAIL "A"

OPTIONAL SERVICE AIR STATION CONNECTION ARRANGEMENT - FIELD TO FURNISH AND USE EQUIPMENT SHOWN AS REQUIRED.

NOTES:

- ALL PIPING, VALVES, AND EQUIPMENT ARE PROJECT CLASS 626 AND PIPING SPEC. L.L.O.
- ALL VALVE SEQUENCE NUMBERS NOT PRECEDED BY AN "X" HAVE A "U" SUBJECT IDENTIFIER.
- INDIVIDUAL UTILITY STATIONS ARE IDENTIFIED BY THEIR APPROXIMATE LOCATIONS IN THE TURBINE BUILDING. EACH STATION IS INDICATED BY (XXX), WITH THE TURBINE BUILDING COLUMN LINE INTERSECTIONS INDICATED BY THE UPPER THREE DIGITS AND THE FLOOR LEVEL INDICATED BY THE LOWER DIGIT. FLOOR LEVELS ARE:
A - EL. 195'-0"
1 - EL. 220'-0"
2 - EL. 245'-0"
3 - EL. 270'-0"
- NO DRAIN VALVE "B" REQUIRED.
- FLANGED SPOOL FOR AIR BLOW.
- FLANGED CONNECTION FOR TEMPORARY AIR COMPRESSOR.

James M. Hiss Jr. P.E.
GEORGIA NO. 11385

PE.
GEORGIA NO. 14183

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
SERVICE AIR SYSTEM
SYSTEM NO. 2401 (TURBINE BUILDING)

SCALE	DRAWING NO.	VER.
NONE	1X4DB188	12.0

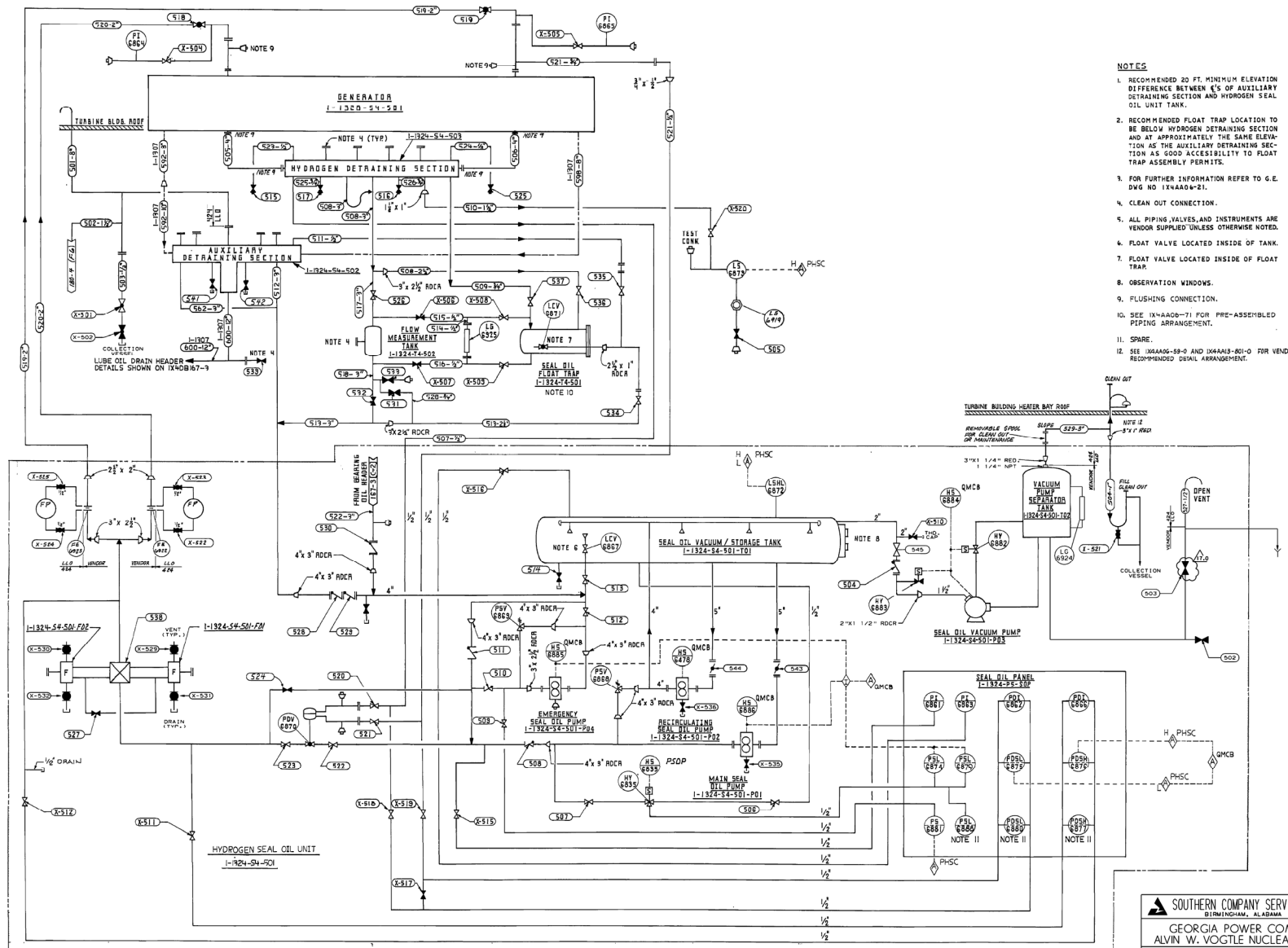
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NO.	REVISIONS	DATE	BY	CHK	APPV
12.0	REVISED PER ABN-81085, VERSION 1.0	9-20-99	RCR	RBH	DEW

JOB NO. 10604

SIZE E 34x44

DWG CATEGORY: CRITICAL

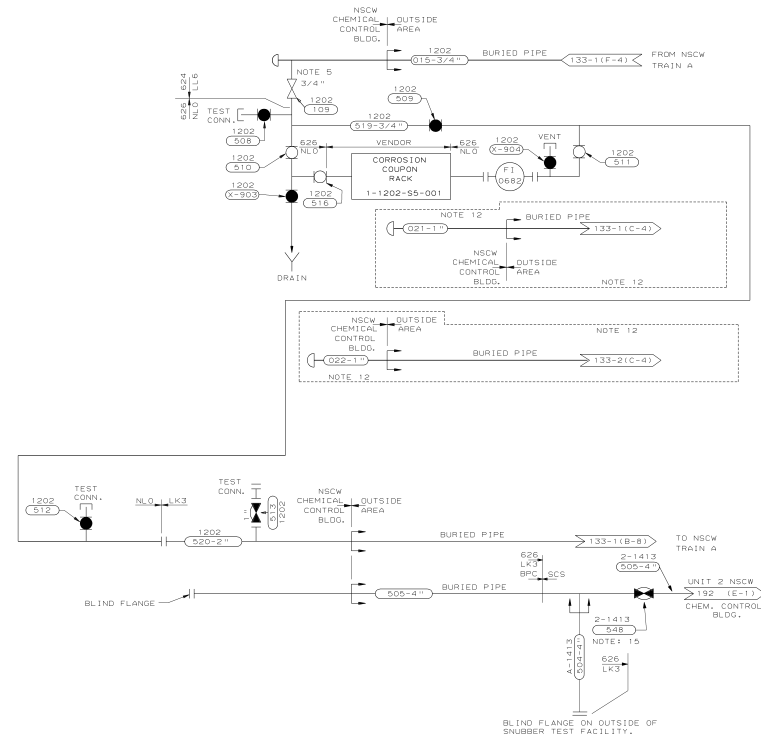
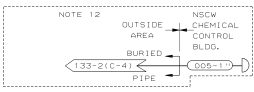
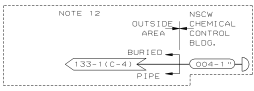
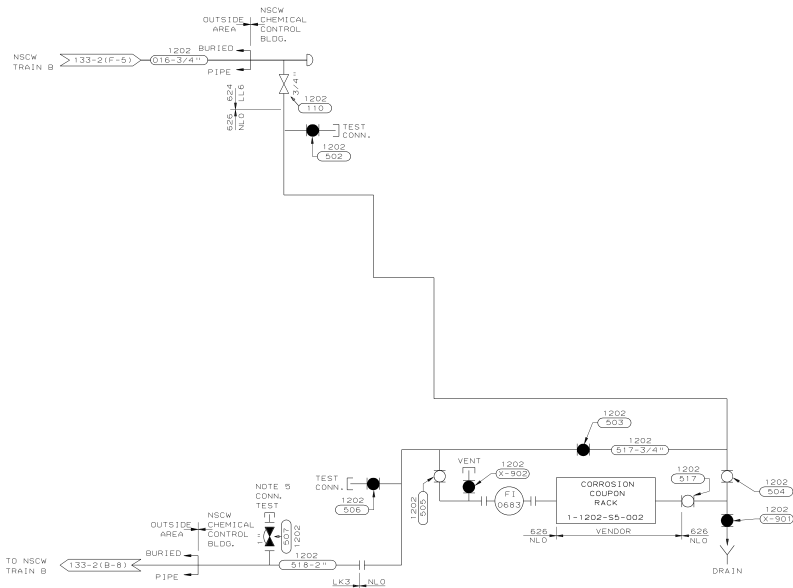


SOUTHERN COMPANY SERVICES, INC.
 BIRMINGHAM, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT
 P&ID DIAGRAM
 TURBINE GENERATOR HYDROGEN SEAL OIL SYS
 SYSTEM NO. 1324

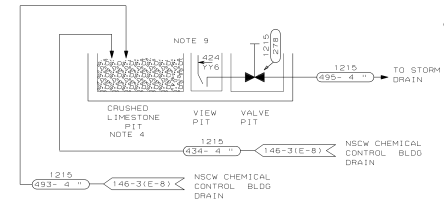
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17.0	REVISIONS PER AWH-V007-05, VER. 1.0	11/17/11 DCH/ELC JAM	SCALE: NONE	DRAWING NO.	VER.
17.0	DATE FOR THE APPROV.	DATE FOR THE APPROV.	JOB NO. 10604	1X4DB191	17.0
17.0	DATE FOR THE APPROV.	DATE FOR THE APPROV.	DATE FOR THE APPROV.	DATE FOR THE APPROV.	DATE FOR THE APPROV.

CRITICAL



- NOTES:**
1. DELETED
 2. DELETED
 3. DELETED
 4. PIT AREA 450 SQ. FT.
 5. ALL ISOLATION VALVES AND ALL TEST CONNECTION VALVES SHALL BE LOCATED AS CLOSE AS POSSIBLE TO THE BURIED PIPE.
 6. DELETED
 7. DELETED
 8. DELETED
 9. DRAIN PIPES PENETRATE 6" INTO CRUSHED LIMESTONE.
 10. DELETED
 11. DELETED
 12. THE ACID AND DISPERSANT INJECTION COMPONENTS OF THE NSCW CHEMICAL INJECTION SYSTEM HAVE BEEN REMOVED. THIS PORTION OF PIPING IS "RETIRED IN PLACE".
 13. LEASED/VENDOR FURNISHED EQUIPMENT
 14. PROVIDE SEISMICALLY QUALIFIED SUPPORTS FOR ALL PIPING INSIDE NSCW TOWER SPLASH RING, INCLUDING INJECTION POINT AT EDGE OF BASIN.
 15. LOCK CLOSE VALVE 2-1413-548.



THIS DRAWING WAS RENUMBERED FROM 1X4DB192 (SHEET 1) WORK THIS DRAWING WITH: 1X4DB192-2

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

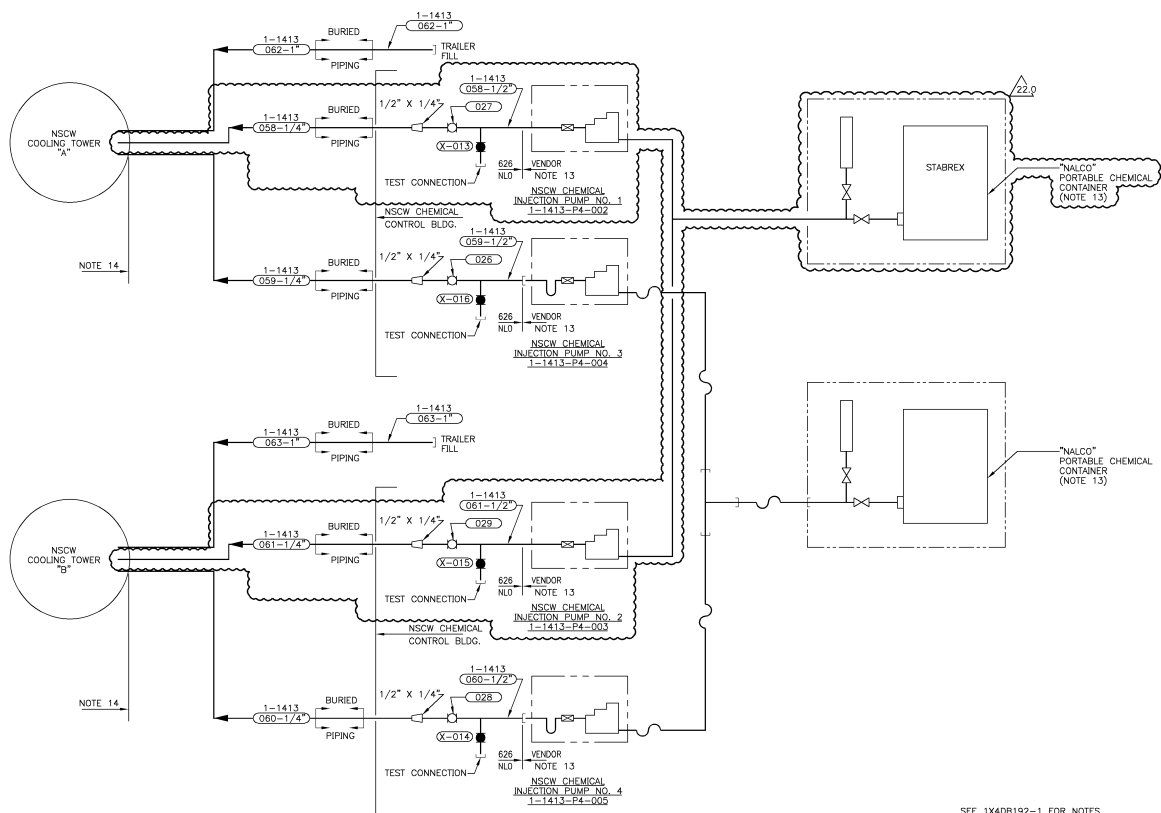
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
NUCLEAR SERVICE COOLING WATER
CHEM INJECTION SYSTEM &
CHLORINE ANALYSIS SYSTEM 1413

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NO.	REVISIONS	DATE	DR	CHK	APPV
21.0	REVISED PER ABN-V00621, VER. 2.0.	5-21-07	TJS	MWD	WLN

SCALE:	DRAWING NO.	VER.
NONE	1X4DB192-1	21.0



SEE 1X4DB192-1 FOR NOTES

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WORK THIS DRAWING WITH:
1X4DB192-1

CAD 1X4DB192-2
Aco02004 TJS - 02

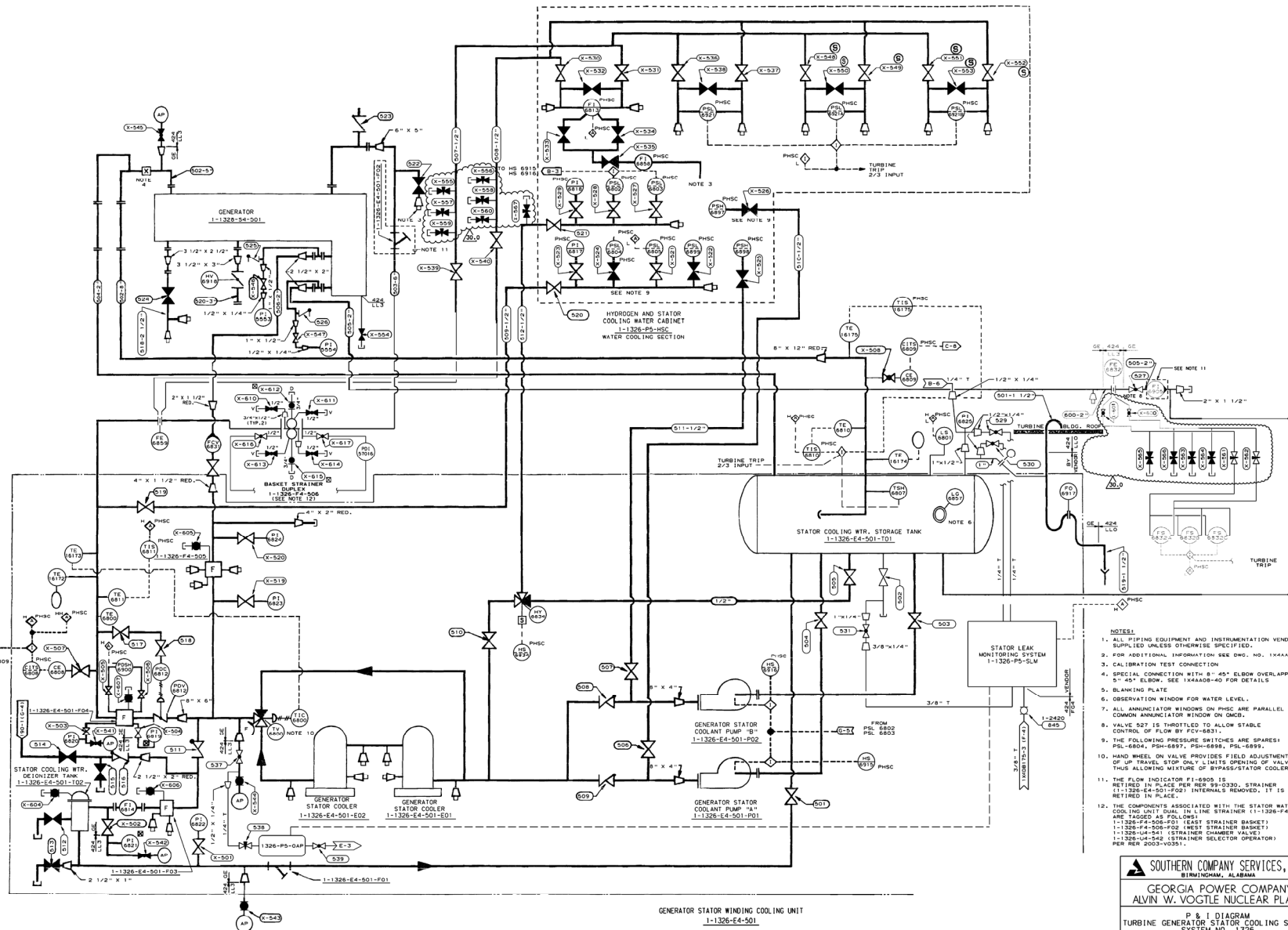
SOUTHERN COMPANY GEORGIA POWER COMPANY ALVIN W. VOGTLE NUCLEAR PLANT	
P & I DIAGRAM NUCLEAR SERVICE COOLING WATER CHEM INJECTION SYSTEM & CHLORINE ANALYSIS SYSTEM 1413	
SCALE: NONE	DRAWING NO. 1X4DB192-2
JOB NO. 10604	VER. 22.0

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VERSIONS		DATE	DR	CHK	APPV	DTL	SEC
22.0	REVISED PER ABN-V00621, VER. 2.0.	5-21-07	TJS	MWD	WLN	X	

SEE E 34X44

1 DRAWING CATEGORY: CRITICAL



- NOTES:
1. ALL PIPING EQUIPMENT AND INSTRUMENTATION VENDOR SUPPLIED UNLESS OTHERWISE SPECIFIED.
 2. FOR ADDITIONAL INFORMATION SEE Dwg. NO. 1K4A08-25
 3. CALIBRATION TEST CONNECTION
 4. SPECIAL CONNECTION WITH 8" 45° ELBOW OVERLAPPING 5" 45° ELBOW. SEE 1K4A08-40 FOR DETAILS
 5. BLANKING PLATE
 6. OBSERVATION WINDOW FOR WATER LEVEL.
 7. ALL ANNUNCIATOR WINDOWS ON PHSC ARE PARALLEL TO A COMMON ANNUNCIATOR WINDOW ON GMB.
 8. VALVE 527 IS THROTTLED TO ALLOW STABLE CONTROL OF FLOW BY FCV-6831.
 9. THE FOLLOWING PRESSURE SWITCHES ARE SPARES: PSL-6804, PSH-6857, PSH-6884, PSL-6885.
 10. HAND WHEEL ON VALVE PROVIDES FIELD ADJUSTMENT OF UP TRAVEL. STOP ONLY. LIMITS OPENING OF VALVE. THUS ALLOWING MIXTURE OF BYPASS/STATOR COOLER FLOW.
 11. THE FLOW INDICATOR FI-6805 IS RETIRED IN PLACE PER SER 99-0220. STRAINER (1-1326-E4-501-F02) INTERNALS REMOVED. IT IS RETIRED IN PLACE.
 12. THE COMPONENTS ASSOCIATED WITH THE STATOR WATER COOLING UNIT DUAL LINE STRAINER (1-1326-F4-508) ARE TAGGED AS FOLLOWS:
1-1326-F4-508-F01 (EAST STRAINER BASKET)
1-1326-F4-508-F02 (WEST STRAINER BASKET)
1-1326-F4-508-F03 (STRAINER CHAMBER VALVE)
1-1326-F4-508-F04 (STRAINER SELECTOR OPERATOR)
PER SER 2003-V0351.

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA

GEORGIA POWER COMPANY
ALVIN W. VOTLE NUCLEAR PLANT

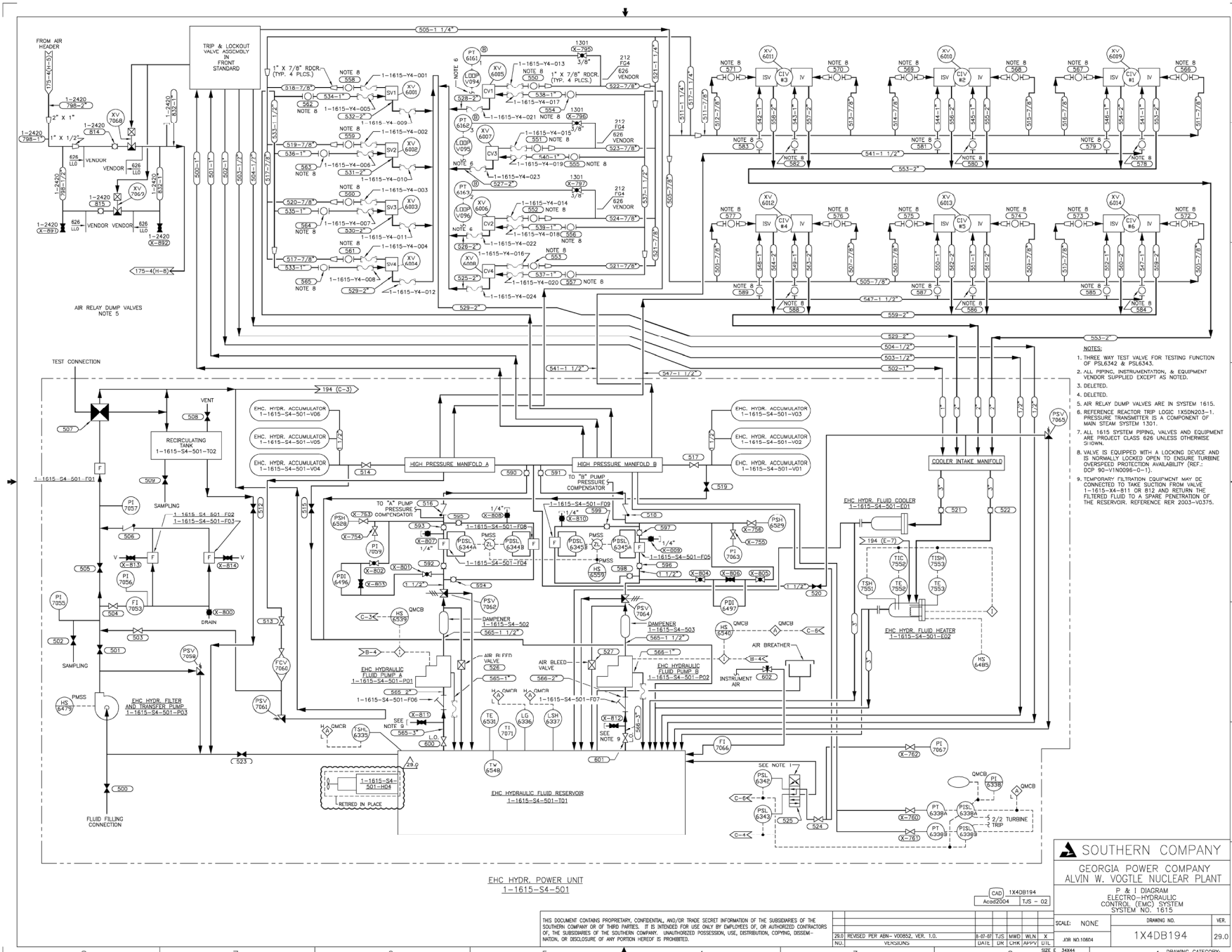
P & I DIAGRAM
TURBINE GENERATOR STATOR COOLING SYSTEM
SYSTEM NO. 1326

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NO.	REVISIONS	DATE	BY	CHK	APPV
1	REVISED PER AWH ENCLOSURE 2, SER. 1-0	08/09/00	MD	SL	MD
2	REVISED PER AWH ENCLOSURE 2, SER. 1-0	08/09/00	MD	SL	MD

SCALE: NONE	DRAWING NO. 1K40B193	VER. 30.0
JOB NO. 10604	DATE 08/09/00	CHK APPV

SIZE E 34444 Dwg CATEGORY CRITICAL



- NOTES:
- THREE WAY TEST VALVE FOR TESTING FUNCTION OF PSL6342 & PSL6343.
 - ALL PIPING, INSTRUMENTATION & EQUIPMENT VENDOR SUPPLIED EXCEPT AS NOTED.
 - DELETED.
 - DELETED.
 - AIR RELAY DUMP VALVES ARE IN SYSTEM 1615.
 - REFERENCE REACTOR TRIP LOCK 1XSD03-1. PRESSURE TRANSMITTER IS A COMPONENT OF MAIN STEAM SYSTEM 1301.
 - ALL 1615 SYSTEM PIPING, VALVES AND EQUIPMENT ARE PROJECT CLASS 626 UNLESS OTHERWISE SHOWN.
 - VALVE IS EQUIPPED WITH A LOCKING DEVICE AND IS NORMALLY LOCKED OPEN TO ENSURE TURBINE OVERSPED PROTECTION AVAILABILITY (REF.: DSP 90-VIND09-0-1).
 - TEMPORARY FILTRATION EQUIPMENT MAY BE CONNECTED TO TAKE SUCTION FROM VALVE 1-1615-Y4-811 OR 812 AND RETURN THE FILTERED FLUID TO A SPARE PENETRATION OF THE RESERVOIR. REFERENCE RER 2003-10375.

EHC HYDR. POWER UNIT
1-1615-S4-501

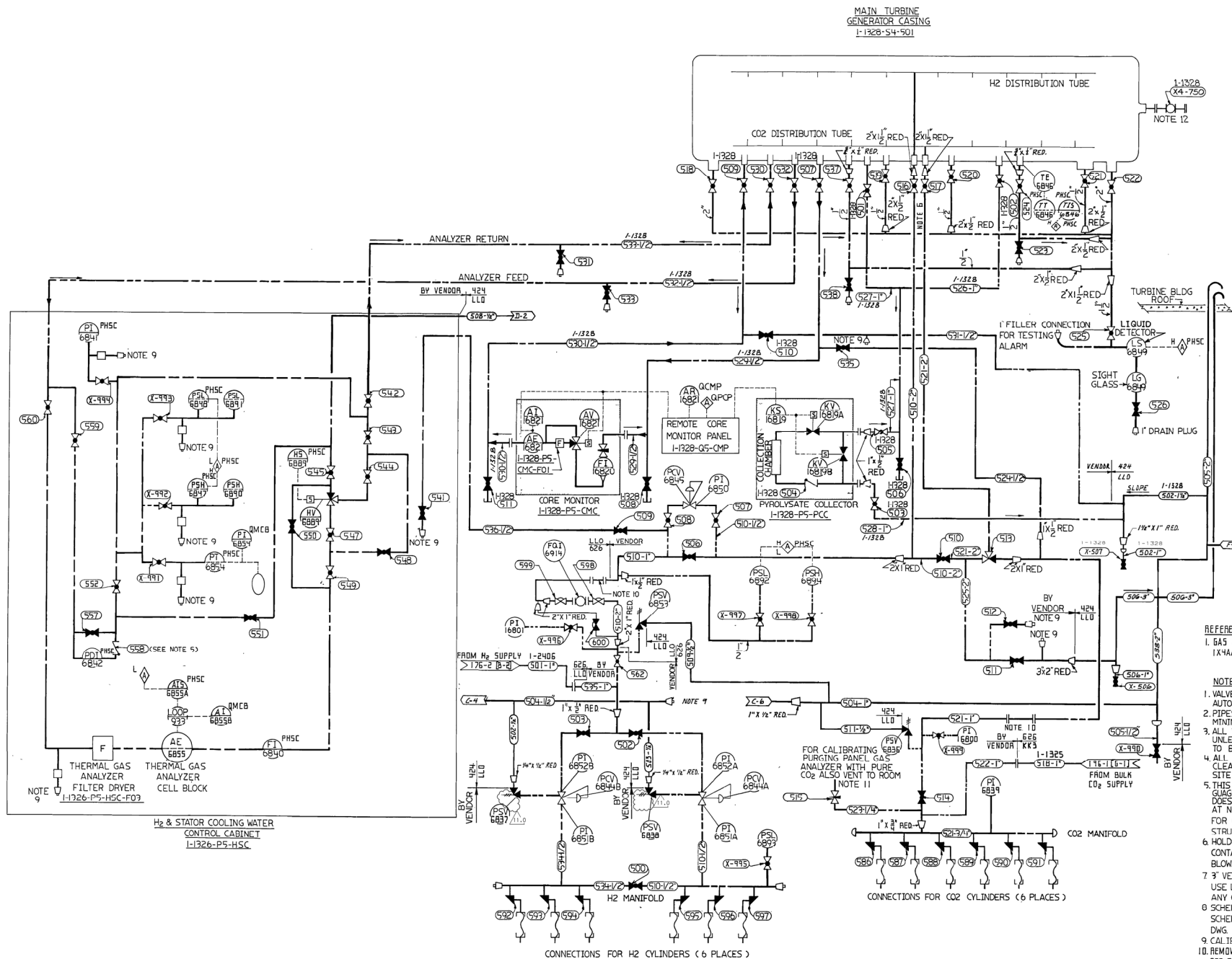
SOUTHERN COMPANY
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CAD 1X4DB194
Acad2004 1J5 - 02

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REV.	DATE	BY	CHK	APPV	U/L	SCALE	DRAWING NO.	VER.
28.0	REVISED PER ABR-000852, VER. 1.0.	8-07-07	TJS	MWD	WLN	X	1X4DB194	29.0
28.0	REVISED PER ABR-000852, VER. 1.0.	8-07-07	TJS	MWD	WLN	X	1X4DB194	29.0
28.0	REVISED PER ABR-000852, VER. 1.0.	8-07-07	TJS	MWD	WLN	X	1X4DB194	29.0

1 DRAWING CATEGORY: CRITICAL



REFERENCES
1. GAS CONTROL PIPING DIAGRAM [BY VENDOR]
IX4A001-2.

- NOTES:
1. VALVES SHOWN IN NORMAL POSITION FOR AUTOMATIC OPERATION IN HYDROGEN.
 2. PIPES TO PITCH DOWN IN DIRECTION OF ARROWS MINIMUM 1/4" PER FOOT.
 3. ALL VALVES AND PIPE FITTINGS WELDED STEEL UNLESS NOTED. ALL DRAIN PLUGS AND VALVES TO BE EASILY ACCESSIBLE LOCATIONS.
 4. ALL HYDROGEN GAS PIPING TO BE BLOWN CLEAR BEFORE AND DURING INSTALLATION SITE HANGING.
 5. THIS VALVE PREVENTS LOSS OF LIQUID FROM THE GAUGE SHOULD THE GAUGE LIMITS BE EXCEEDED & DOES NOT RESTRICT FLOW IN EITHER DIRECTION AT NORMAL GAUGE DIFFERENTIAL PRESSURE. FOR OPERATING INSTRUCTIONS REFER TO INSTRUCTION BOOK.
 6. HOLD INSTALLATION OF LAST SPOOL OF 2" LINES CONTAINING VALVES 516 & 517 UNTIL AFTER BLOWDOWN OF PIPING.
 7. 3" VENT TO BE SHIELDED OUTSIDE OF BUILDING USE LONG R ELBOWS AND DO NOT TIE IN WITH ANY OTHER PIPING.
 8. SCHEDULE 80 PIPE 1/2" THRU 2" LARGER SIZE SCHEDULE 40 PIPING INSTRUCTIONS PER GE DWG. 107A9291 (SCS NO. IX4A06-40).
 9. CALIBRATION OR TEST CONNECTION.
 10. REMOVE SPOOL, PIECE AND ASSEMBLE BLANKING FLANGES TO GAS SUPPLY SIDE WHEN GENERATOR IS DE-GASSED.

SOUTHERN COMPANY SERVICES, INC.
BIRMINGHAM, ALABAMA
GEORGIA POWER COMPANY
ALVIN W. VOGTLE NUCLEAR PLANT

P & I DIAGRAM
GENERATOR GAS PURGING SYSTEM
SYS. NO. 1.325

11. CONNECTION FOR LOCAL AIR SUPPLY FOR PURGING GENERATOR OF CO₂ FOR MAINTENANCE. DO NOT MAKE CONNECTION PERMANENT. DISCONNECT AFTER EACH USE. USE ONLY INSTRUMENT QUALITY AIR.
12. FLUX PROBE VALVE LOCATED ON NORTH SIDE OF THE GENERATOR.

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NO.	REVISION	PER	DATE	BY	CHK	APPV	SCALE	DRAWING NO.	VER.
11.0	REVISED PER ABN-V01096, VER. 1.0	3-14-88	Bgt	MMW	PKL		NONE	1X4UB196	11.0
NO.	VERSIONS	DATE	DR	CHK	APPV			JOB NO. 10604	

